

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE\*

FORM APPROVED  
OMB NO. 1040-0136  
Expires: February 28, 1995

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

TYPE OF WORK

DRILL ☒

DEEPEN ☐

TYPE OF WELL

OIL WELL ☐

GAS WELL ☒

OTHER ☐

SINGLE ☒  
ZONE

MULTIPLE ☐  
ZONE

2. NAME OF OPERATOR

QUESTAR EXPLORATION & PRODUCTION, CO.

Contact: Jan Nelson

E-Mail: jan.nelson@questar.com

3. ADDRESS

1571 E. 1700 S. Vernal, Ut 84078

Telephone number

Phone 435-781-4032 Fax 435-781-4045

4. LOCATION OF WELL (Report location clearly and in accordance with and State requirements\*)

At Surface 625606' 810' ENL 1813' FWL NENW SECTION 35, T7S, R21E

At proposed production zone 4447756.4 40.172683 -109.524848

14. DISTANCE IN MILES FROM NEAREST TOWN OR POSTOFFICE\*

35 +/- SOUTHWEST OF VERNAL, UTAH

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.

(also to nearest drig,unit line if any)

810' +/-

18. DISTANCE FROM PROPOSED location to nearest well, drilling,  
completed, applied for, on this lease, ft

16. NO. OF ACRES IN LEASE

640.00

19. PROPOSED DEPTH

16,700'

21. ELEVATIONS (Show whether DF, RT, GR, ect.)

5091.5' GR

22. DATE WORK WILL START

ASAP

9. API NUMBER:

43-047-38995

10. FIELD AND POOL, OR WILDCAT

Wentz + S. Vail 710

11. SEC., T, R, M, OR BLK & SURVEY OR AREA

SEC. 35, T7S, R21E Mer SLB

12. COUNTY OR PARISH

Uintah

13. STATE

UT

17. NO. OF ACRES ASSIGNED TO THIS WELL

40

20. BLM/BIA Bond No. on file

ESB000024

23. Estimated duration

90 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan
3. A surface Use Plan (if location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

SIGNED

Name (printed/typed) Jan Nelson

DATE 1-25-07

TITLE

Regulatory Affairs

(This space for Federal or State office use)

PERMIT NO.

43-047-38995

APPROVAL DATE

Application approval does not warrant or certify the applicant holds any legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY

TITLE

BRADLEY G. HILL

ENVIRONMENTAL MANAGER

\*See Instructions On Reverse Side

DATE

01-31-07

Title 18 U.S.C Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

RECEIVED

JAN 29 2007

DIV. OF OIL, GAS & MINING

Federal Approval of this  
Action is Necessary

CONFIDENTIAL

T7S, R21E, S.L.B.&M.

1953 Brass  
Cap, 0.2' High,  
Pile of Stones

S88°23'50"W - 2661.73' (Meas.)

S88°22'W - 2661.45' (G.L.O.)

91°04'  
(G.L.O.)

810'

S45°13'23"W  
1183.48'

1953 Brass Cap,  
0.6' High, Pile of  
Stones

1813' (Comp.)

SU PURDY #3M-35-7-21  
Elev. Ungraded Ground = 5095'

5324.88' (G.L.O.)

35

N00°32'W - 5356.56' (G.L.O.)

S88°45'W - 5325.54' (G.L.O.)

T7S

T8S

### BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.

(NAD 83)

LATITUDE = 40°10'21.40" (40.172611)

LONGITUDE = 109°31'31.78" (109.525494)

(NAD 27)

LATITUDE = 40°10'21.53" (40.172647)

LONGITUDE = 109°31'29.30" (109.524806)

### LEGEND:

└─┘ = 90° SYMBOL

● = PROPOSED WELL HEAD.

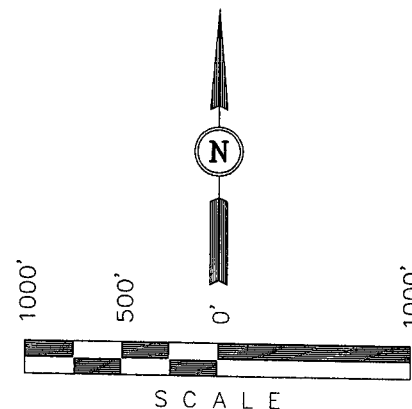
▲ = SECTION CORNERS LOCATED.

### QUESTAR EXPLR. & PROD.

Well location, SU PURDY #3M-35-7-21, located as shown in the NE 1/4 NW 1/4 of Section 35, T7S, R21E, S.L.B.&M. Uintah County, Utah.

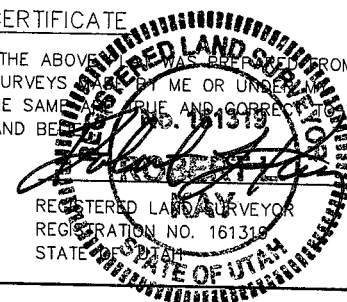
### BASIS OF ELEVATION

BENCH MARK (20EAM) LOCATED IN THE SE 1/4 OF SECTION 35, T8S, R21E, S.L.B.&M. TAKEN FROM THE OURAY SE QUADRANGLE, UTAH, UTAH COUNTY, 7.5 MINUTE SERIES (TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 4697 FEET.



### CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE WAS SURVEYED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



UINTAH ENGINEERING & LAND SURVEYING  
85 SOUTH 200 EAST - VERNAL, UTAH 84078  
(435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 10-31-06	DATE DRAWN: 11-7-06
PARTY D.A. A.A. K.G.	REFERENCES G.L.O. PLAT	
WEATHER COOL	FILE QUESTAR EXPLR. & PROD.	

### **Additional Operator Remarks**

Questar Explor. & Prod. Co. proposes to drill a well to 16,700' to test the Mancos formation. If productive, casing will be run and the well completed. If dry, the well will be plugged and abandoned as per BLM and State of Utah requirements"

See Onshore Oil & Gas Order No. 1

Please see Questar Explor. & Prod. Co. Standard Operating Practices dated October 18, 2005, for Mesa Verde Formation Wells located in Red Wash, Wonsits Valley, Gypsum Hills, White River, Glen Bench, and Undesignated fields in Townships 07, 08 and 09 South, Ranges 21 to 25 East.

Please be advised that Questar Explor. & Prod. Co. agrees to be responsible under the terms and conditions of the lease for the operations conducted upon the lease lands.

Bond coverage for this well is provided by Bond No.ESB000024. The principal is Questar Explor. & Prod. Co. via surety as consent as provided for the 43 CFR 3104.2.

DRILLING PROGRAM

ONSHORE OIL & GAS ORDER NO. 1  
Approval of Operations on Onshore  
Federal Oil and Gas Leases

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil and Gas No. 1, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished the field representative to insure compliance.

1. **Formation Tops**

The estimated tops of important geologic markers are as follows:

<u>Formation</u>	<u>Depth</u>
Uinta	Surface
Green River	3,269'
Wasatch	6,934'
Mesaverde	9,959'
Castlegate	12,349'
Blackhawk	12,709'
Mancos Shale	13,154'
Mancos B	13,599'
Frontier	16,294'
TD	16,700'

2. **Anticipated Depths of Oil Gas Water and Other Mineral Bearing Zones**

The estimated depths at which the top and bottom of the anticipated water, oil, gas. Or other mineral bearing formations are expected to be encountered are as follows:

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
Gas	Wasatch	6,934'
Gas	Mesaverde	9,959'
Gas	Blackhawk	12,709'
Gas	Mancos Shale	13,154'
Gas	Mancos B	13,599'

All fresh water and prospectively valuable minerals encountered during drilling, will be recorded by depth and adequately protected. All oil and gas shows will be tested to determine commercial potential.

All water shows and water-bearing sands will be reported to the BLM in Vernal, Utah. Copies of State of Utah form OGC-8-X are acceptable. If flows are detected, samples will be submitted to the BLM along with any water analyses conducted. Fresh water will be



DRILLING PROGRAM

obtained from Wonsits Valley water right # A36125 (which was filed on May 7, 1964,) or Red Wash water right # 49-2153 (which was filed on March 25, 1960). It was determined by the Fish and Wildlife Service that any water right number filed before 1989 is not depleting to the Upper Colorado River System, to supply fresh water for drilling purposes. All water resulting from drilling operations will be disposed of at Red Wash Central Battery Disposal Site; SWSE, Section 27, T7S, R23E or Wonsits Valley Disposal Site; SWNW, Section 12, T8S, R21E.

3. **Operator's Specification for Pressure Control Equipment:**

- A. 13-5/8" 5000 psi double gate, 5,000 psi annular BOP (schematic included) from surface hole to 9-5/8" casing point.
- B. 11" 10,000 psi double gate, 10,000 psi single gate, 10,000 psi annular BOP (schematic included) from 9-5/8" casing point to total depth.
- C. Functional test daily
- D. All casing strings shall be pressure tested (0.2 psi/foot or 1500 psi, whichever is greater) prior to drilling the plug after cementing; test pressure shall not exceed the internal yield pressure of the casing.
- E. Ram type preventers and associated equipment shall be tested to approved stack working pressure if isolated by test plug or to 50 percent of internal yield pressure of casing whichever is less. BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc..., for a 10M system and individual components shall be operable as designed.

4. **Casing Design:**

Hole Size	Csg. Size	Top (MD)	Bottom (MD)	Wt.	Grade	Thread	Cond.
26"	20"	sfc	40-60'	Steel	Cond.	None	Used
17-1/2"	13-3/8	sfc	500'	54.5	K-55	STC	New
12-1/4"	9-5/8"	sfc	10,000'	47	HCP-110	LTC	New
8-1/2"	7"	9700'	13,600'	29*	HCP-110	LTC	New

### DRILLING PROGRAM

				SDrift			
6-1/8"	4-1/2"	sfc	13,700'	15.1	P-110	LTC	New
6-1/8"	4-1/2"	13,700'	16,700'	15.1	Q-125	LTC	New

Casing Strengths:				Collapse	Burst	Tensile (minimum)
13-3/8"	54.5 lb.	K-55	STC	1,130 psi	2,730 psi	547,000 lb.
9-5/8"	47 lb.	HCP-110	LTC	7,100 psi	9,440 psi	1,213,000 lb.
7"	29 lb.*	HCP-110	LTC	9,200 psi	11,220 psi	797,000 lb.
4-1/2"	15.1 lb.	P-110	LTC	14,350 psi	14,420 psi	406,000 lb.
4-1/2"	15.1 lb.	Q-125	LTC	15,840 psi	16,380 psi	438,000 lb.

**\* Special Drift**

**MINIMUM DESIGN FACTORS:**

COLLAPSE: 1.125

BURST: 1.10

TENSION: 1.80

Area Fracture Gradient: 0.9 psi/foot

Maximum anticipated mud weight: 15.4 ppg

Maximum surface treating pressure: 12,500 psi

**5. Auxiliary Equipment**

- A. Kelly Cock – yes
- B. Float at the bit – yes
- C. Monitoring equipment on the mud system – visually and/or PVT/Flow Show
- D. Full opening safety valve on the rig floor – yes
- E. Rotating Head – yes  
If drilling with air the following will be used:
- F. The blooie line shall be at least 6" in diameter and extend at least 100' from the well bore into the reserve/blooie pit.

## DRILLING PROGRAM

- G. Blooie line ignition shall be provided by a continuous pilot (ignited when drilling below 500').
- H. Compressor shall be tied directly to the blooie line through a manifold.
- I. A mister with a continuous stream of water shall be installed near the end of the blooie lines for dust suppression.

Surface hole will be drilled with air, air/mist, foam, or mud depending on hole conditions. Drilling below surface casing will be with water based drilling fluids consisting primarily of fresh water, bentonite, lignite, caustic, lime, soda ash and polymers. No chromates will be used. It is not intended to use oil in the mud, however, in the event it is used, oil concentration will be less than 4% by volume. Maximum anticipated mud weight is 15.4 ppg.

No minimum quantity of weight material will be required to be kept on location.

PVT/Flow Show will be used from base of surface casing to TD.

Gas detector will be used from surface casing depth to TD.

### 6. Testing, logging and coring program

- A. Cores – none anticipated
- B. DST – none anticipated
- C. Logging – Mud logging – 500' to TD  
GR-SP-Induction, Neutron Density, FMI/Sonic Scanner
- D. Formation and Completion Interval: Mancos interval, final determination of completion will be made by analysis of logs.  
Stimulation – Stimulation will be designed for the particular area of interest as encountered.

### 7. Cementing Program

#### **20" Conductor:**

Cement to surface with construction cement.

#### **13-3/8" Surface Casing: sfc – 500' (MD)**

**Slurry:** 0' – 500'. 610 sxs (731 cu ft) Premium cement + 0.25 lbs/sk Flocele + 2% CaCl<sub>2</sub>

## DRILLING PROGRAM

Slurry wt: 15.6 ppg, slurry yield: 1.20 ft<sup>3</sup>/sx, slurry volume: 17-1/2" hole + 100% excess.

### **9-5/8" Intermediate Casing: sfc – 10,000' (MD)**

**Lead Slurry:** 0' – 9,500'. 2733 sks (715 bbls) Foamed Lead 50/50 Poz cement + 0.1 % FDP-C766-05 (Low Fluid Loss Control) + 5 #/sx Silicate Compacted + 20 % SSA-1 + 0.1 % Versaset + 1.5 % Zonesealant 2000 (Foamer) Slurry wt: 14.3 ppg, (unfoamed) Slurry yield: 1.47 ft<sup>3</sup>/sk (unfoamed), Slurry volume: 12-1/4" hole + 35 % excess.

**Tail Slurry:** 9,500' – 10,000'. 156 sks (41 bbls) Tail 50/50 Poz cement + 0.1 % FDP-C766-05 (Low Fluid Loss Control) + 5 #/sx Silicate Compacted + 20 % SSA-1 + 0.1 % Versaset Slurry wt: 14.3 ppg, Slurry yield: 1.47 ft<sup>3</sup>/sk, Slurry volume: 12-1/4" hole + 35% excess.

### **7" Intermediate Casing: 9,700 - 13,600' (MD)**

**Foamed Lead Slurry 2:** 9,700' – 13,600. 389 sks (618 cu ft) 50/50 Poz Premium + 20% SSA-1 + 3 % silicalite compacted + 0.5% Halad 344 + 0.2% Halad 413 + 0.1% HR-12 + 0.7% Super CBL + 0.2% Suspend Slurry wt: 14.0 ppg,, Slurry yield: 1.59 ft<sup>3</sup>/sk, Slurry volume: 8-1/2" hole + 25% excess.

### **4-1/2" Production Casing: sfc - 16,700' (MD)**

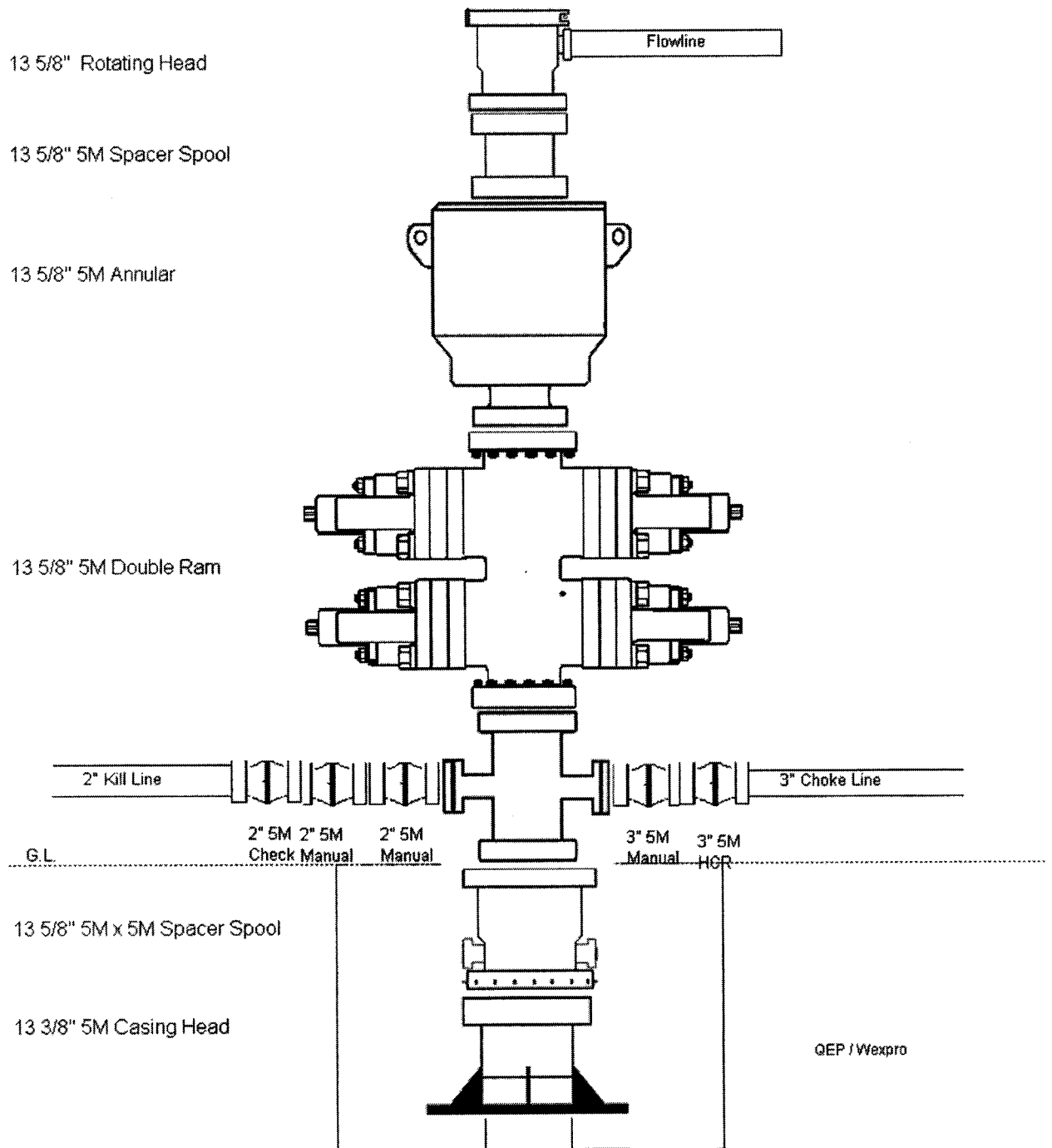
**Lead/Tail Slurry:** 6,500 - 16,700'. 870 sks (1296 cu ft) Premium Cement + 17.5% SSA-1, + 4% Microbond HT, + 0.2% Halad 344 + 0.5% Halad 413, + 0.3% CFR-3, + 0.9% HR-12, + 0.2% Super CBL, + 0.2% Suspend HT, 17.5% SSA-2. Slurry wt: 16.2 ppg, Slurry yield: 1.49 ft<sup>3</sup>/sk, Slurry volume: 6-1/8" hole + 35% in open hole section.

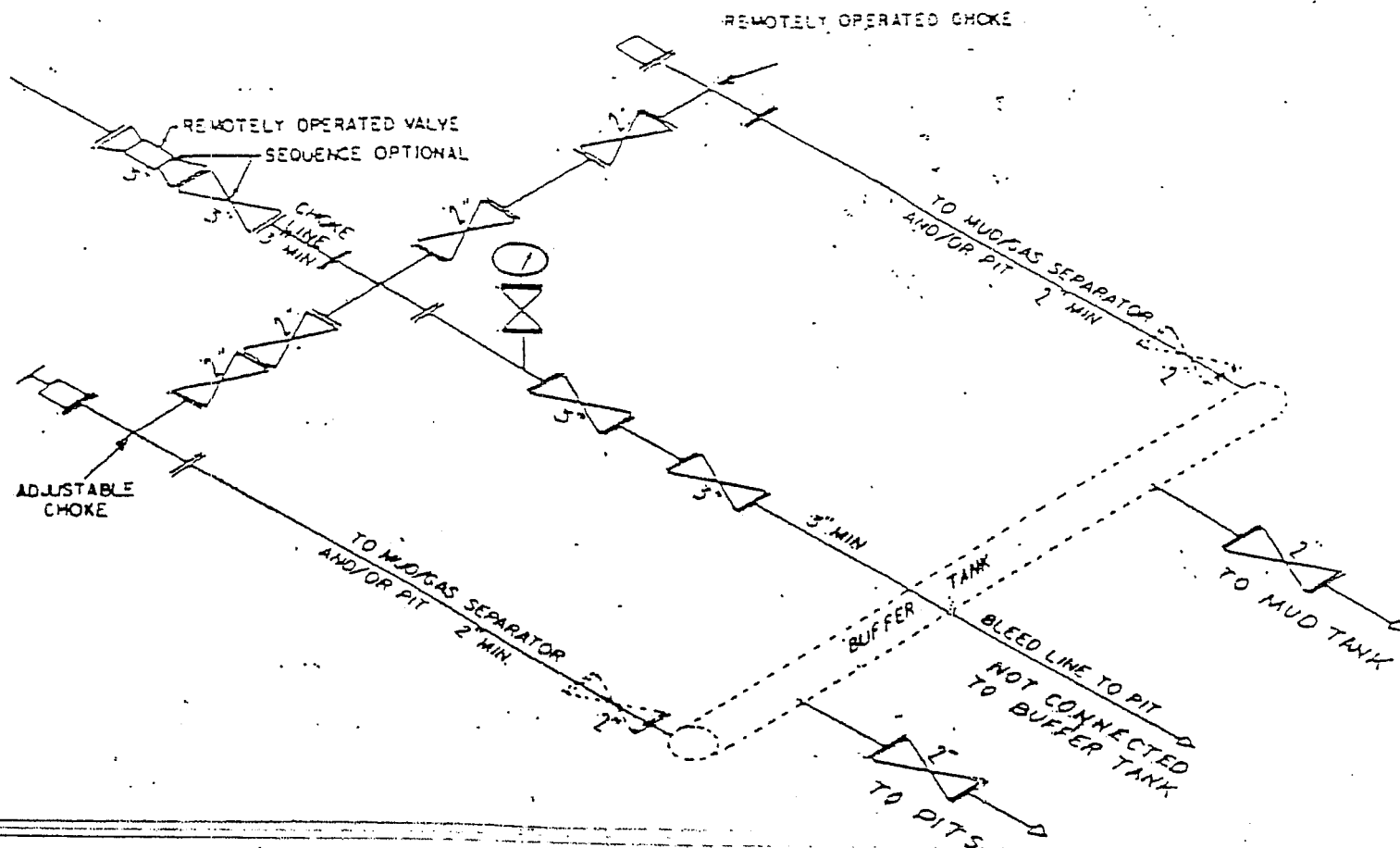
\*Final cement volumes to be calculated from caliper log with an attempt to be made to circulate cement to the surface on the intermediate string and 5,000' on the production string. A bond log will be run across the zone of interest and across zones as required by the authorized officer to insure protection of natural resources.

## **8. Anticipated Abnormal Pressures and Temperatures, Other Potential Hazards**

No abnormal temperatures or pressures are anticipated. No H2S has been encountered in or known to exist from previous wells drilled to similar depths in the general area. Maximum anticipated bottom hole pressure equals approximately 13,000 psi. Maximum anticipated bottom hole temperature is 320° F.

# DRILLING PROGRAM





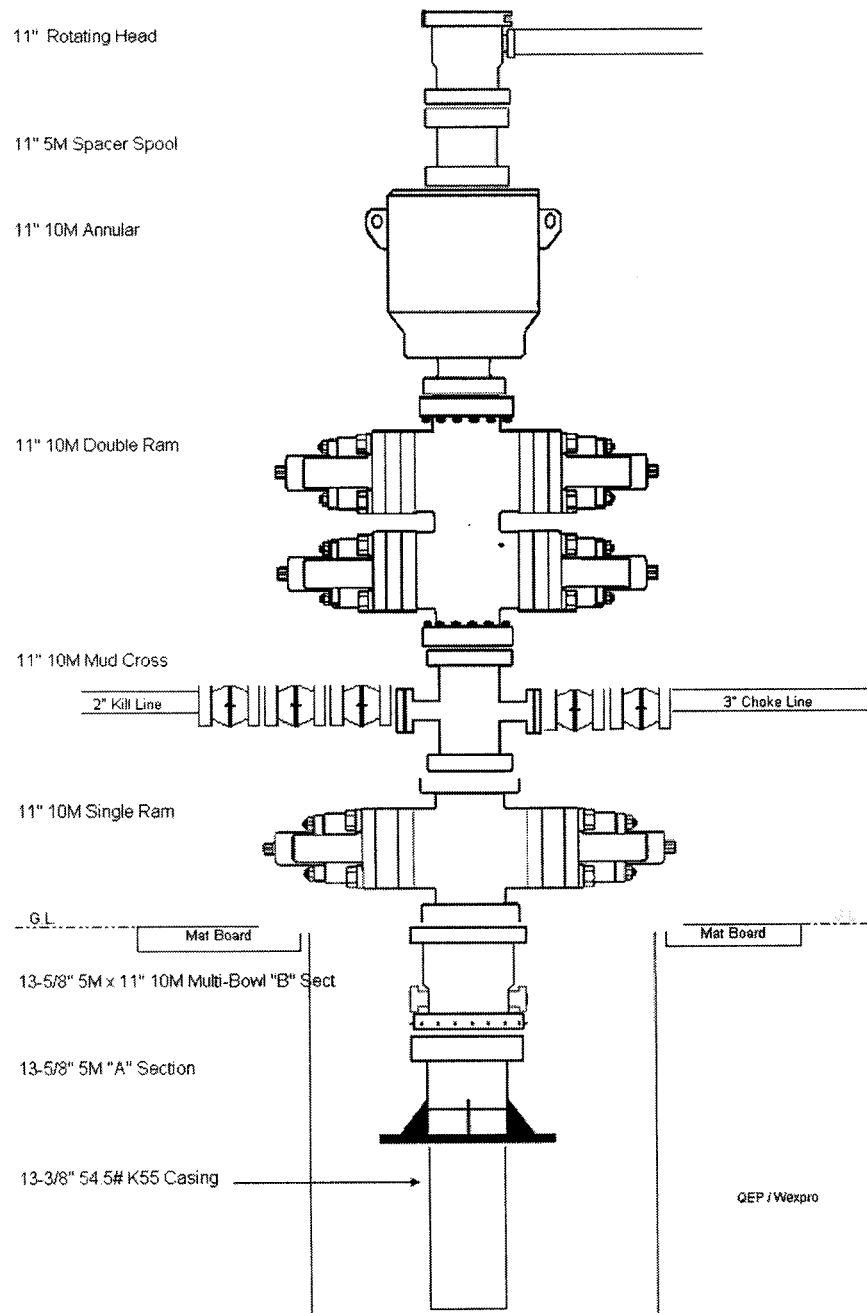
② 5M CHOKE MANIFOLD EQUIPMENT — CONFIGURATION OF CHOKES MAY VARY

## DRILLING PROGRAM

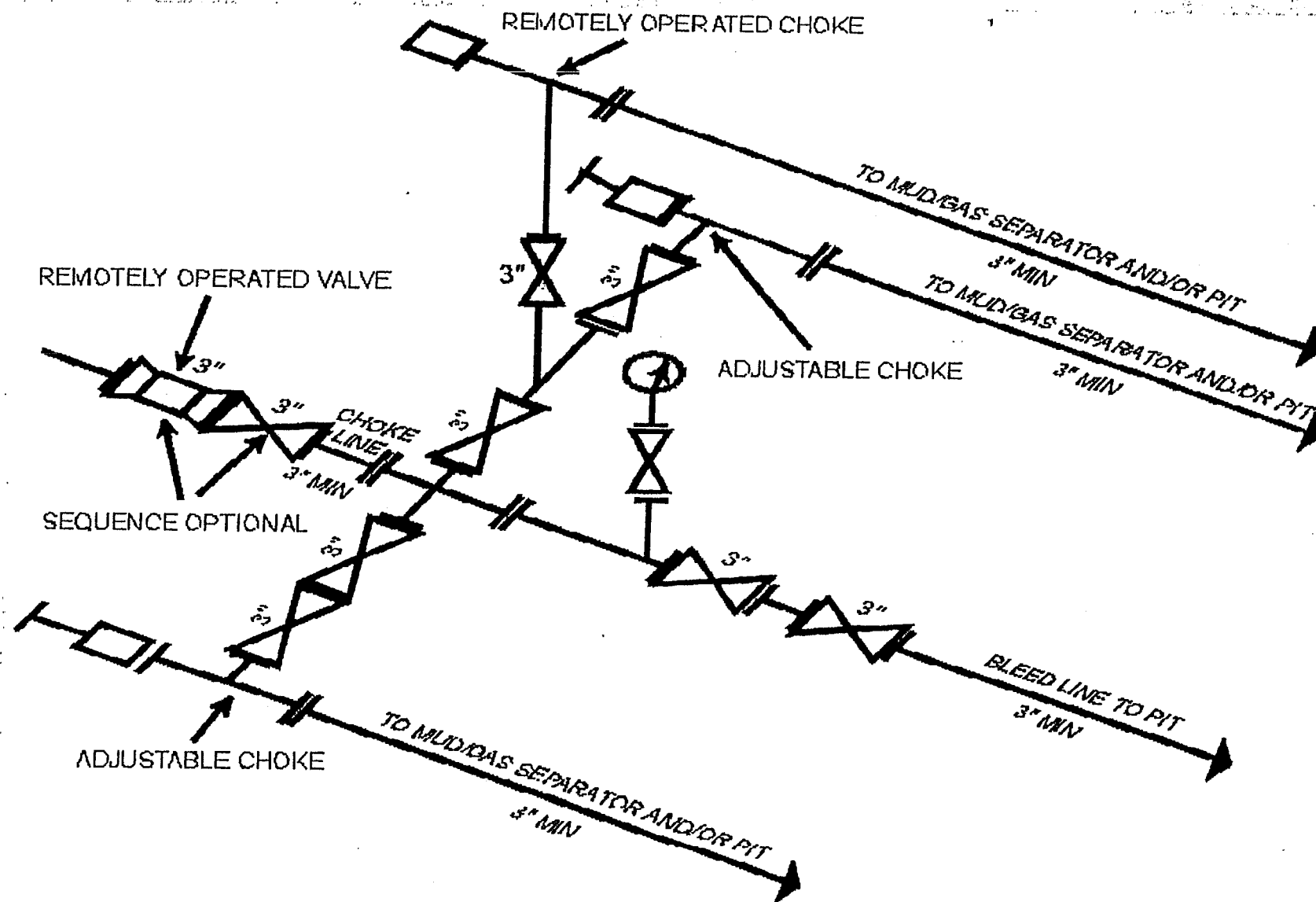
**Purpose:**

The stack arrangement with the 7" liner hanger allows an 11" stack to fit in the sub of Ensign 24 and True 32. This arrangement requires using a 5000 psi 13-5/8" double gate stack until the 9-5/8" is set. After the 9-5/8" casing is set, a spacer spool is nippeded down and an 13-5/8" 5000 psi x 13-5/8" 10,000 psi "B" section is nippeded up. The 11" 10K stack is nippeded up on top of the "B" section.

**BOP Requirements:**



Attachment I. Diagrams of Choke Manifold Equipment



I-4 10M and 15M Choke Manifold Equipment -- Configuration of chokes may vary

[54 FR 39528, Sept. 27, 1989]

Last Updated March 25, 1997 by John Broderick



**QUESTAR EXPLORATION & PRODUCTION, CO.**  
**SU PURDY 3M-35-7-21**  
**810' FNL 1813' FWL**  
**NENW, SECTION 35, T7S, R21E**  
**UINTAH COUNTY, UTAH**  
**LEASE # UTU-73681**

**ONSHORE ORDER NO. 1**

**MULTI – POINT SURFACE USE & OPERATIONS PLAN**

An onsite inspection was conducted for the SU PURDY 3M-35-7-21 on November 28, 2006. Weather conditions were cold and snow at the time of the onsite. In attendance at the inspection were the following individuals:

Paul Buhler	Bureau of Land Management
Amy Torres	Bureau of Land Management
Jan Nelson	Questar Exploration & Production, Co.

**1. Existing Roads:**

The proposed well site is approximately 35 miles southwest of Vernal, Utah.

Refer to Topo Maps A and B for location of access roads within a 2 – mile radius.

There will be no improvements made to existing roads.

**2. Planned Access Roads:**

Please see Questar Explor. & Prod. Co. Standard Operating Practices dated October 18, 2005, for Mesa Verde Formation Wells located in Red Wash, Wonsits Valley, Gypsum Hills, White River, Glen Bench, and Undesignated fields in Townships 07, 08 and 09 South, Ranges 21 to 25 East.

Refer to Topo Map B for the location of the proposed access road.

**3. Location of Existing Wells Within a 1 – Mile Radius:**

Please refer to Topo Map C.

**4. Location of Existing & Proposed Facilities:**

Please see Questar Explor. & Prod. Co. Standard Operating Practices dated October 18, 2005, for Mesa Verde Formation Wells located in Red Wash, Wonsits Valley, Gypsum Hills, White River, Glen Bench, and Undesignated fields in Townships 07, 08 and 09 South, Ranges 21 to 25 East.

Refer to Topo Map D for the location of the proposed pipeline.

**5. Location and Type of Water Supply:**

Please see Questar Explor. & Prod. Co. Standard Operating Practices dated October 18, 2005, for Mesa Verde Formation Wells located in Red Wash, Wonsits Valley, Gypsum Hills, White River, Glen Bench, and Undesignated fields in Townships 07, 08 and 09 South, Ranges 21 to 25 East.

**6. Source of Construction Materials:**

Please see Questar Explor. & Prod. Co. Standard Operating Practices dated October 18, 2005, for Mesa Verde Formation Wells located in Red Wash, Wonsits Valley, Gypsum Hills, White River, Glen Bench, and Undesignated fields in Townships 07, 08 and 09 South, Ranges 21 to 25 East.

**7. Methods of Handling Waste Materials:**

Please see Questar Explor. & Prod. Co. Standard Operating Practices dated October 18, 2005, for Mesa Verde Formation Wells located in Red Wash, Wonsits Valley, Gypsum Hills, White River, Glen Bench, and Undesignated fields in Townships 07, 08 and 09 South, Ranges 21 to 25 East.

**8. Ancillary Facilities:**

Please see Questar Explor. & Prod. Co. Standard Operating Practices dated October 18, 2005, for Mesa Verde Formation Wells located in Red Wash, Wonsits Valley, Gypsum Hills, White River, Glen Bench, and Undesignated fields in Townships 07, 08 and 09 South, Ranges 21 to 25 East.

**9. Well Site Layout: (See Location Layout Diagram)**

The attached Location Layout Diagram describes drill pad cross-sections, cuts and fills and locations of the mud tanks, reserve pit, flare pit, pipe racks, trailer parking, spoil dirt stockpile(s), and surface material stockpile(s).

Please see the attached diagram to describe rig orientation, parking areas, and access roads.

A pit liner is required. A felt pit liner will be required if bedrock is encountered.

**10. Plans for Reclamation of the Surface:**

Please see Questar Explor. & Prod. Co. Standard Operating Practices dated October 18, 2005, for Mesa Verde Formation Wells located in Red Wash, Wonsits Valley, Gypsum Hills, White River, Glen Bench, and Undesignated fields in Townships 07, 08 and 09 South, Ranges 21 to 25 East.

**Interim Reclamation**

Please see attached Interim Reclamation plan.

Once the well is put onto production, QEP will reclaim as much of the well pad as possible that will allow for operations to continue in a safe and reasonable manner. Reseeding will be done in the spring or fall of every year to allow winter precipitation to aid in the success of reclamation.

**Seed Mix:**

*Interim Reclamation:*

9 lbs Hycrest Crested Wheatgrass

3 lbs Forage Kochia

*Final Reclamation:*

Seed Mix # 5      4 lbs. Gardner Saltbush, 4 lbs. Hycrest Crested Wheat Grass, 4 lbs. Shadscale

**11. Surface Ownership:**

Bureau of Land Management

170 South 500 East

Vernal, Utah 84078

(435) 781-4400

**12. Other Information**

A Class III archaeological survey was conducted by Montgomery Archaeology Consultants. A copy of this report was submitted directly to the appropriate agencies by Montgomery Archaeology Consultants. Cultural resource clearance was recommended for this location.

A class III paleontological survey was conducted by Intermountain Paleo Consulting. A copy of this report was submitted directly to the appropriate agencies by Stephen D. Sandau. The inspection resulted in the location of no fossil resources. However, if vertebrate fossil(s) are found during construction a paleontologist should be immediately notified. QEP will provide paleo monitor if needed.

After reserve pit is reclaimed berm southwest side of location, round corner # 2 as much as possible. Install culverts, rock and gravel as needed.

**Lessee's or Operator's Representative:**

Jan Nelson  
Red Wash Rep.  
Questar Exploration & Production, Co.  
11002 East 17500 South  
Vernal, Utah 84078  
(435) 781-4331

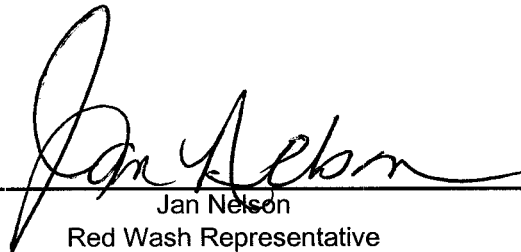
**Certification:**

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil & Gas Orders, the approved plan of operations, and any applicable Notice to Lessees.

Questar Explor. & Prod. Co. will be fully responsible for the actions of their subcontractors.

A complete copy of the approved Application for Permit to Drill will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Questar Explor. & Prod. Co. it's contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

  
\_\_\_\_\_  
Jan Nelson  
Red Wash Representative

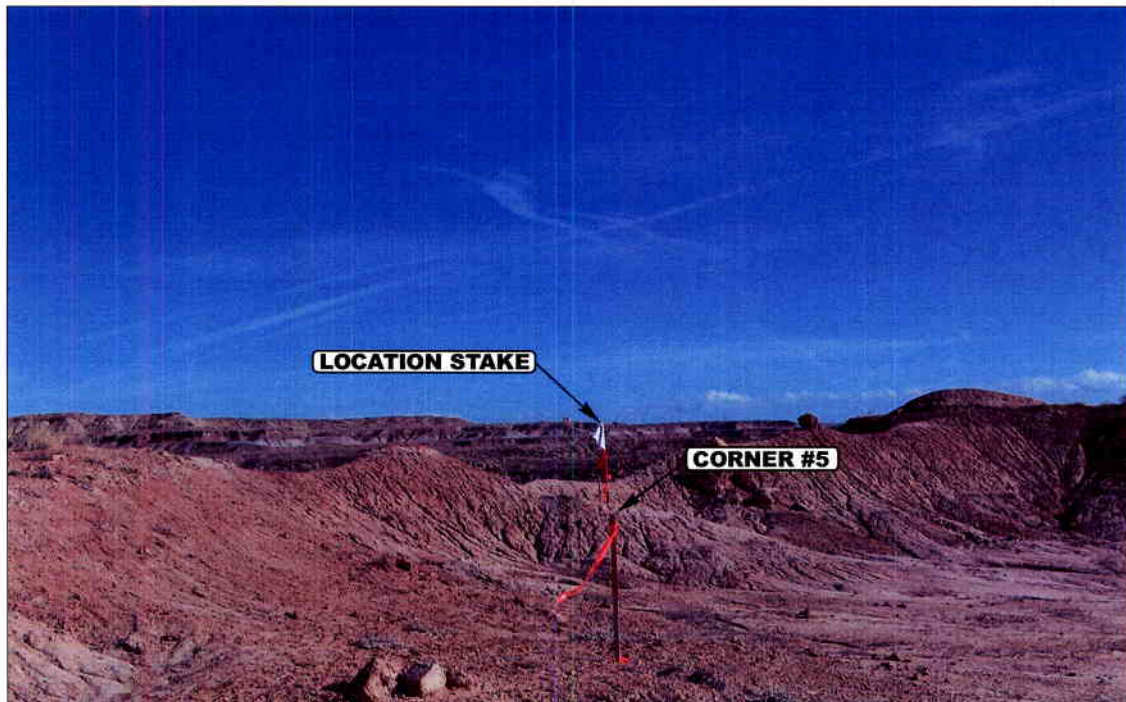
\_\_\_\_\_  
25-Jan-07  
Date

# QUESTAR EXPLR. & PROD.

**SU PURDY #3M-35-7-21**

**LOCATED IN UINTAH COUNTY, UTAH**

**SECTION 35, T7S, R21E, S.L.B.&M.**



**PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE**

**CAMERA ANGLE: SOUTHEASTERLY**



**PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS**

**CAMERA ANGLE: EASTERLY**



- Since 1964 -

**UELS**

**Uintah Engineering & Land Surveying**

85 South 200 East Vernal, Utah 84078  
435-789-1017 uels@uelsinc.com

**LOCATION PHOTOS**

**11 03 06**  
MONTH DAY YEAR

**PHOTO**

TAKEN BY: D.A.

DRAWN BY: L.K.

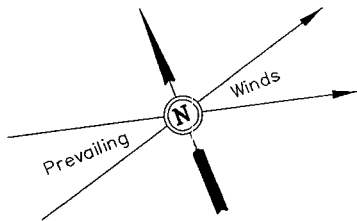
REVISED: 00-00-00

# QUESTAR EXPLR. & P.D.

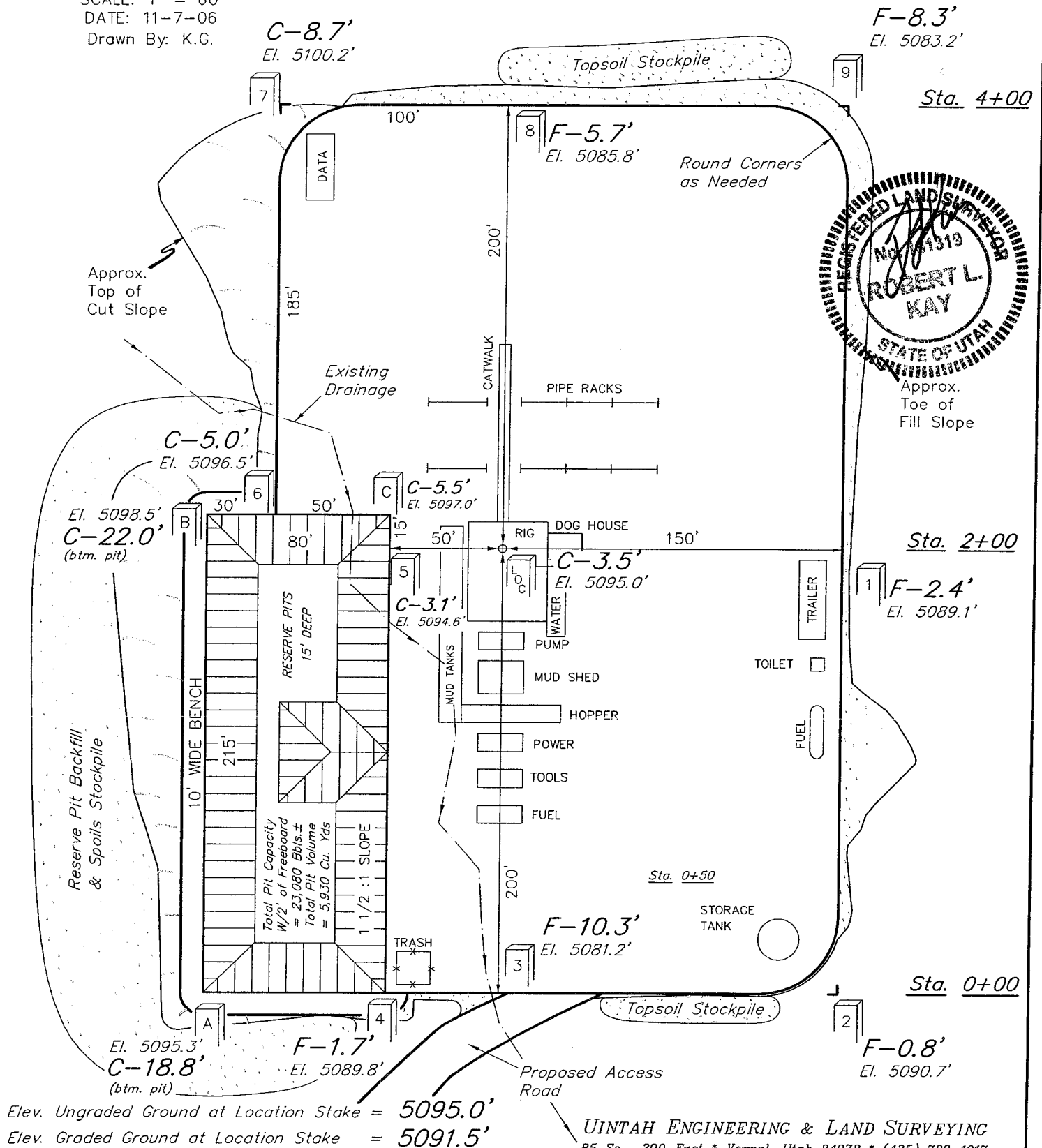
## LOCATION LAYOUT FOR

SU PURDY #3M-35-7-21  
SECTION 35, T7S, R21E, S.L.B.&M.  
810' FNL 1813' FWL

FIGURE #1



SCALE: 1" = 60'  
DATE: 11-7-06  
Drawn By: K.G.



# QUESTAR EXPLR. & PRO.

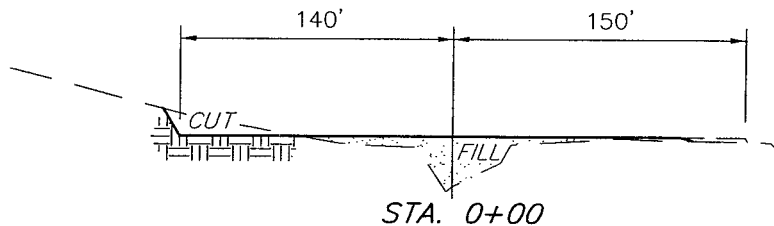
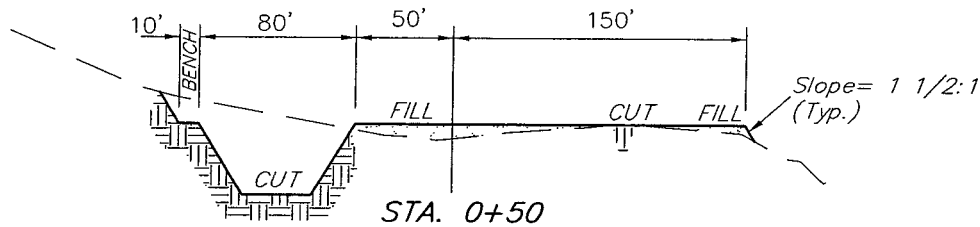
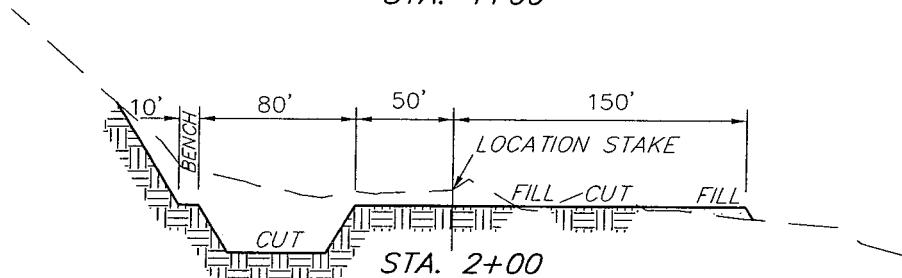
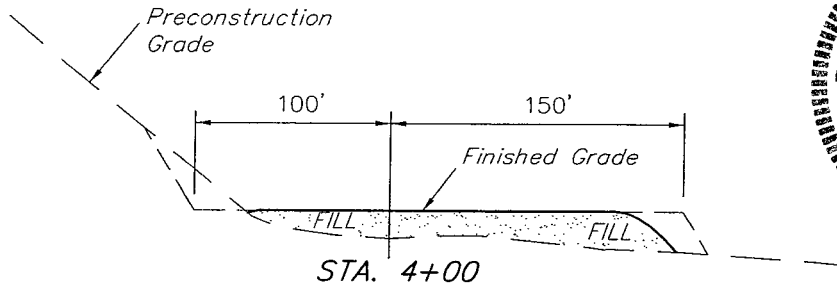
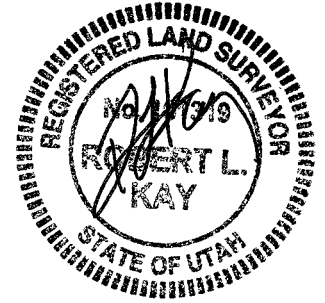
## TYPICAL CROSS SECTIONS FOR

SU PURDY #3M-35-7-21  
SECTION 35, T7S, R21E, S.L.B.&M.  
810' FNL 1813' FWL

FIGURE #2

1" = 40'  
X-Section  
Scale  
1" = 100'

DATE: 11-7-06  
Drawn By: K.G.



### NOTE:

Topsoil should not be Stripped Below Finished Grade on Substructure Area.

### \* NOTE:

FILL QUANTITY INCLUDES 5% FOR COMPACTION

### APPROXIMATE YARDAGES

#### CUT

(6") Topsoil Stripping = 2,450 Cu. Yds.

Remaining Location = 16,720 Cu. Yds.

TOTAL CUT = 19,170 CU.YDS.

FILL = 8,750 CU.YDS.

EXCESS MATERIAL = 10,420 Cu. Yds.

Topsoil & Pit Backfill (1/2 Pit Vol.) = 5,420 Cu. Yds.

EXCESS UNBALANCE (After Interim Rehabilitation) = 5,000 Cu. Yds.

UINTAH ENGINEERING & LAND SURVEYING

85 So. 200 East \* Vernal, Utah 84078 \* (435) 789-1017

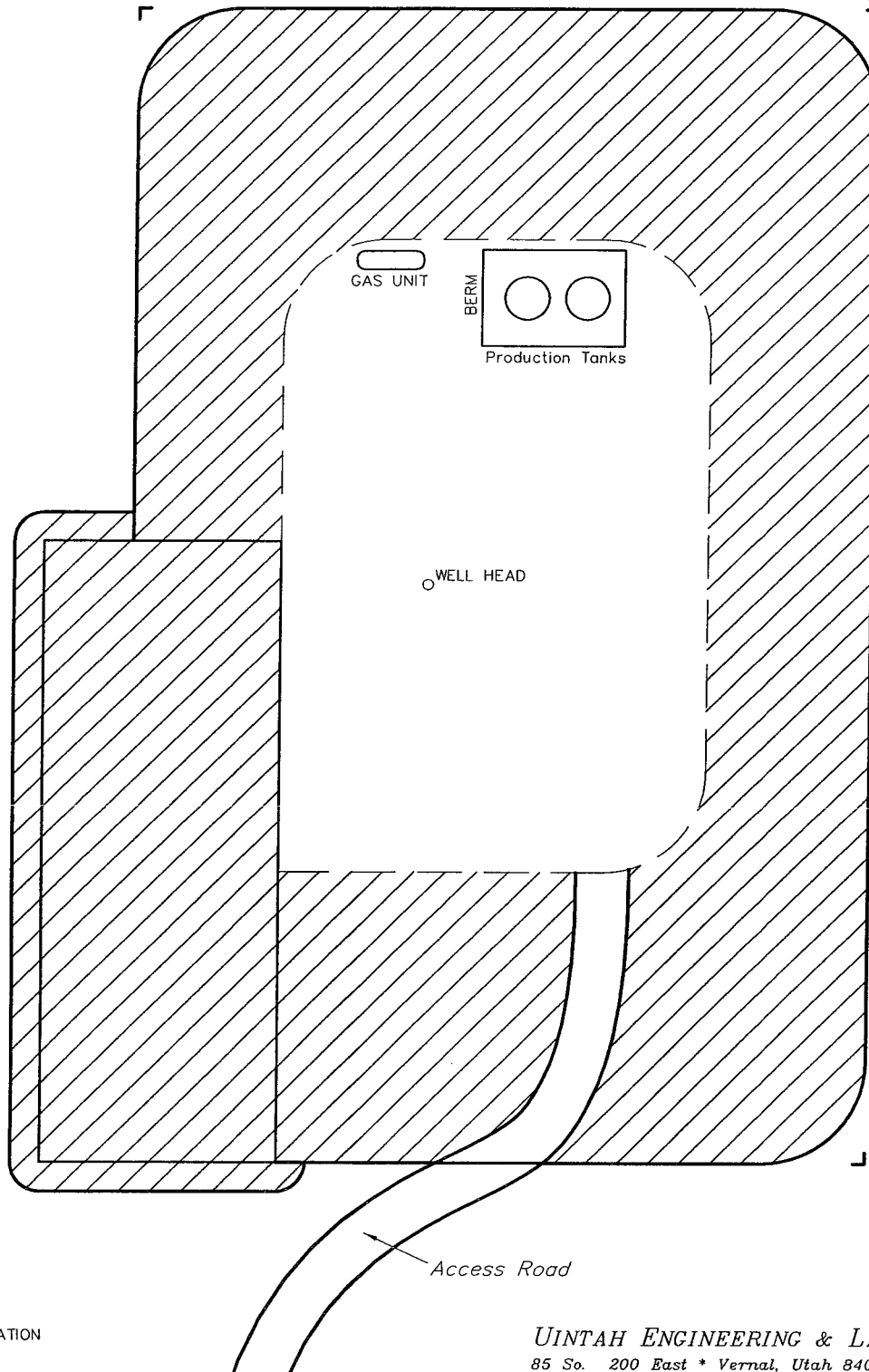
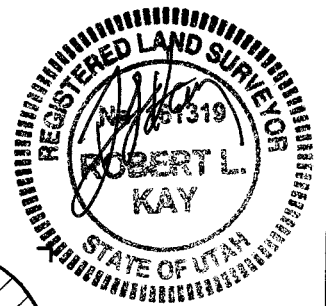
QUESTAR EXPLR. & P.D.  
INTERIM RECLAMATION PLAN FOR

SU PURDY #3M-35-7-21  
SECTION 35, T7S, R21E, S.L.B.&M.  
810' FNL 1813' FWL

FIGURE #3

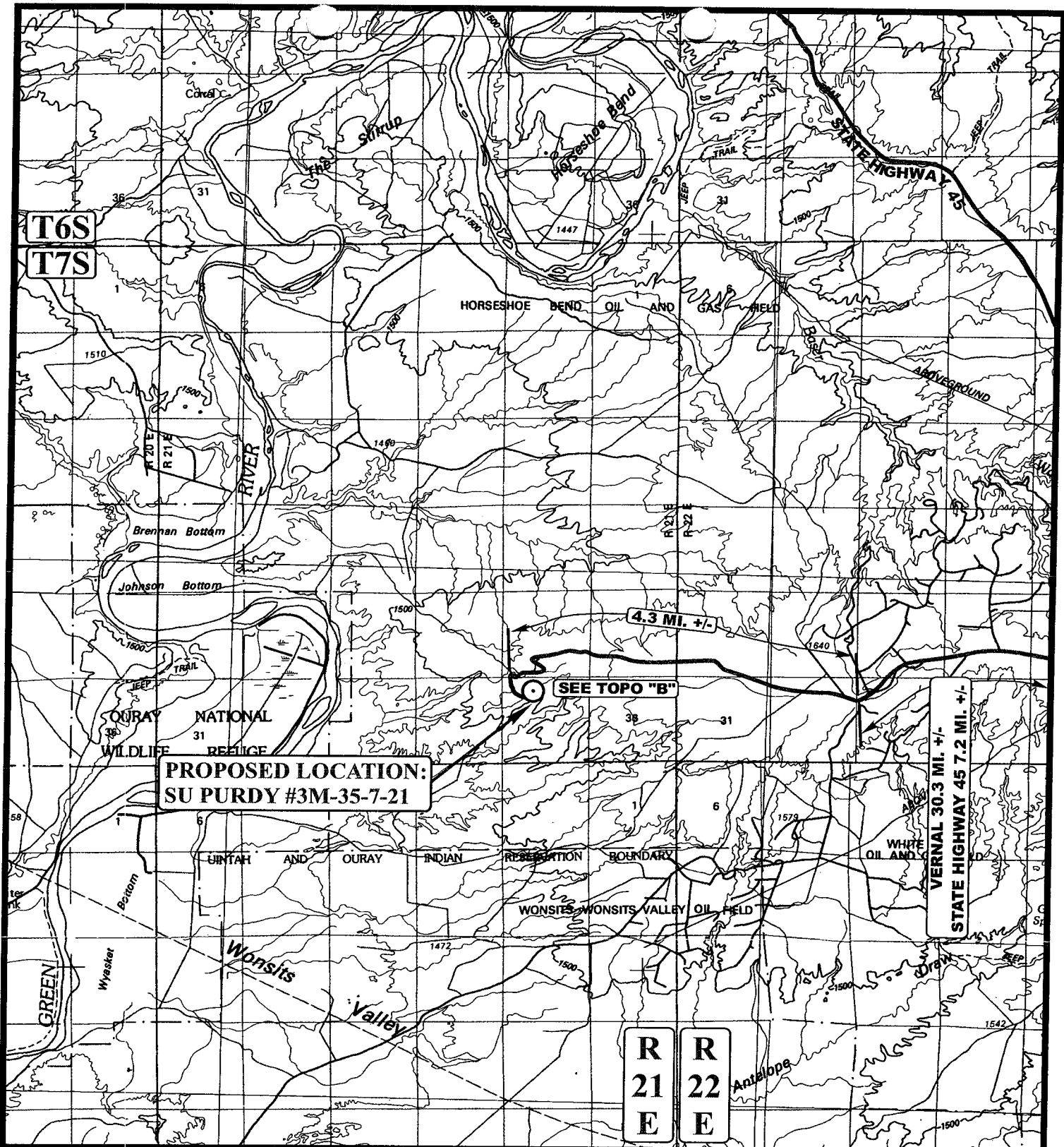


SCALE: 1" = 60'  
DATE: 11-7-06  
Drawn By: K.G.



UINTAH ENGINEERING & LAND SURVEYING  
85 So. 200 East \* Vernal, Utah 84078 \* (435) 789-1017





# LEGEND:

○ PROPOSED LOCATION

## QUESTAR EXPLR. & PROD.

SU PURDY #3M-35-7-21  
SECTION 35, T7S, R21E, S.L.B.&M.  
810' FNL 1813' FWL



Uintah Engineering & Land Surveying  
85 South 200 East Vernal, Utah 84078  
(435) 789-1017 \* FAX (435) 789-1813



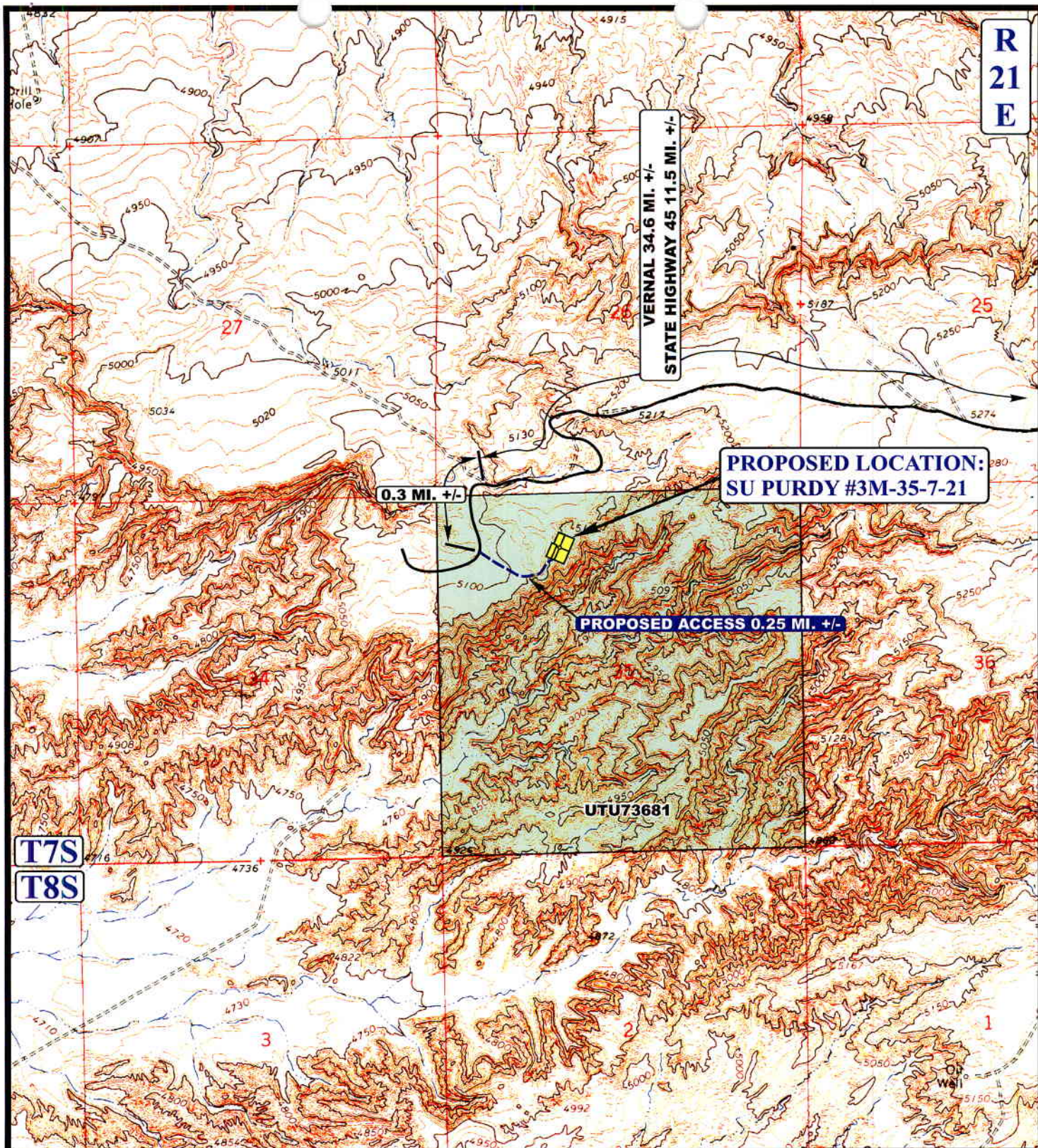
TOPOGRAPHIC  
MAP

11 03 06  
MONTH DAY YEAR

SCALE: 1:100,000 DRAWN BY: L.K. REVISED: 00-00-00

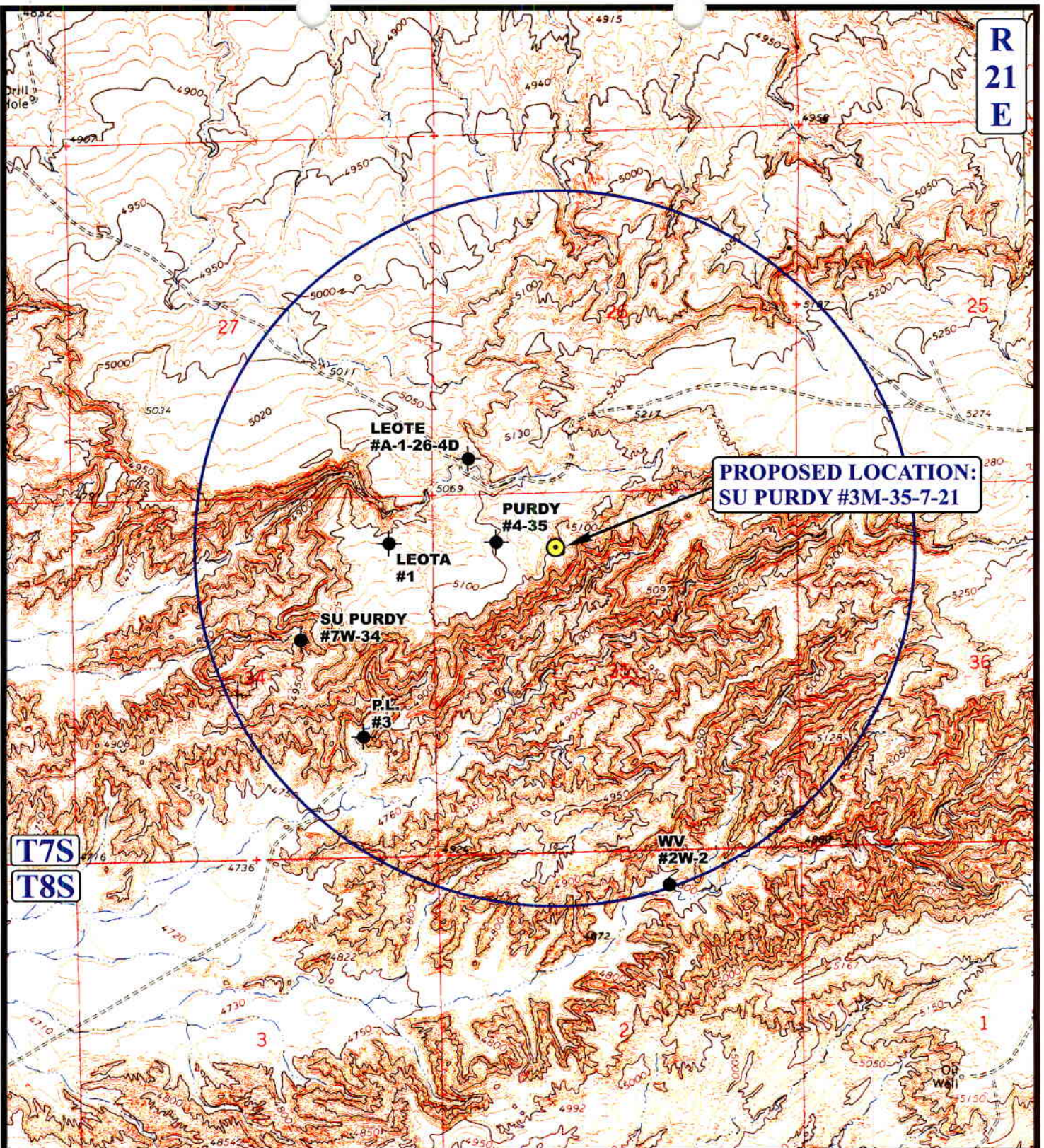








**R  
21  
E**



**T7S**

**T8S**

**LEGEND:**

- |                   |                         |
|-------------------|-------------------------|
| ⊗ DISPOSAL WELLS  | ⊗ WATER WELLS           |
| ● PRODUCING WELLS | ● ABANDONED WELLS       |
| ● SHUT IN WELLS   | ● TEMPORARILY ABANDONED |



**Uintah Engineering & Land Surveying**  
85 South 200 East Vernal, Utah 84078  
(435) 789-1017 \* FAX (435) 789-1813



**QUESTAR EXPLR. & PROD.**

**SU PURDY #3M-35-7-21**  
**SECTION 35, T7S, R21E, S.L.B.&M.**  
**810' FNL 1813' FWL**

**TOPOGRAPHIC  
MAP**

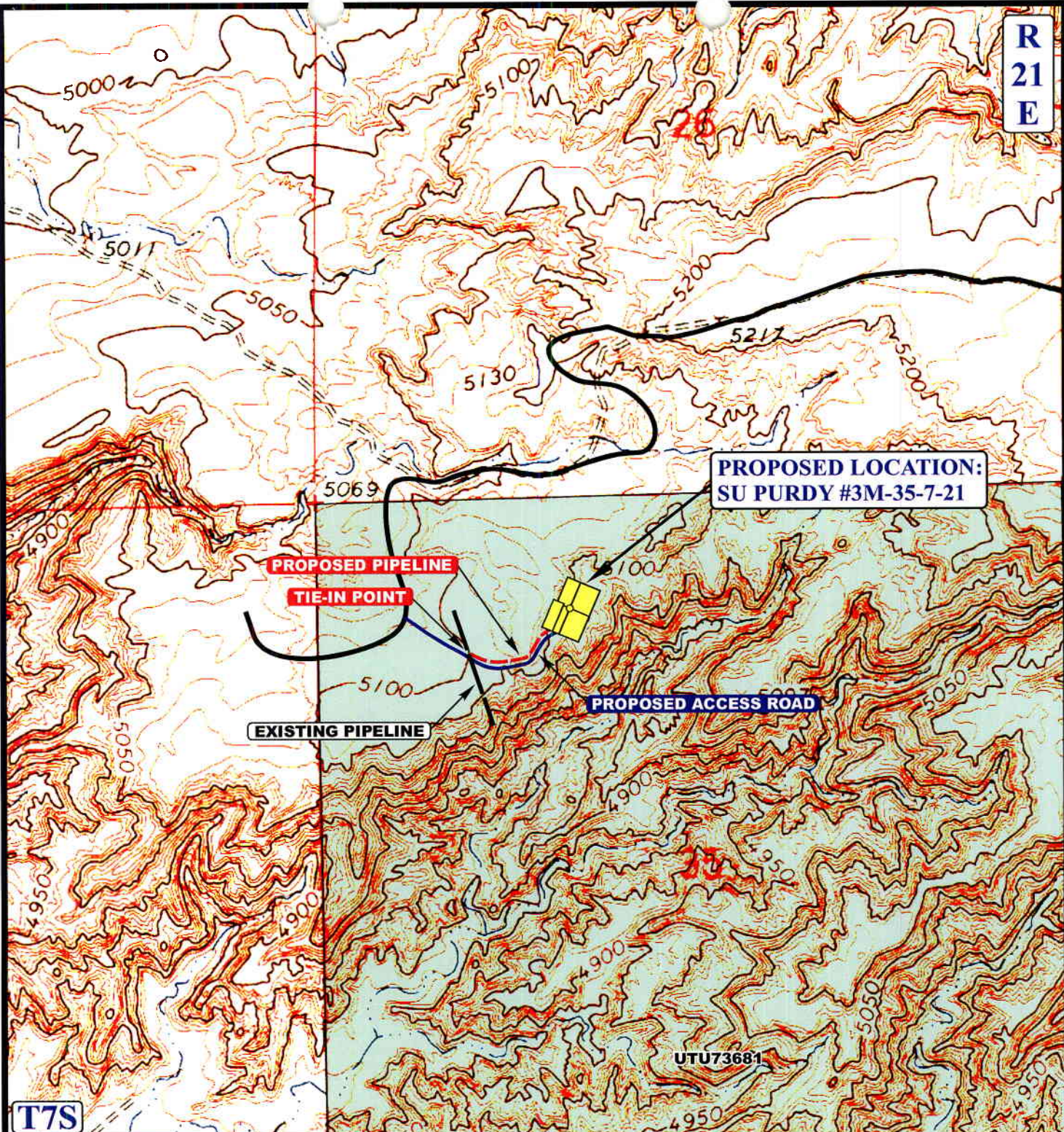
**11 03 06**  
MONTH DAY YEAR

SCALE: 1" = 2000' DRAWN BY: L.K. REVISED: 00-00-00





R  
21  
E



APPROXIMATE TOTAL PIPELINE DISTANCE = 714' +/-

**LEGEND:**

- PROPOSED ACCESS ROAD
- EXISTING PIPELINE
- PROPOSED PIPELINE
- PROPOSED PIPELINE (SERVICING OTHER WELLS)



Uintah Engineering & Land Surveying  
85 South 200 East Vernal, Utah 84078  
(435) 789-1017 \* FAX (435) 789-1813



**QUESTAR EXPLR. & PROD.**

SU PURDY #3M-35-7-21  
SECTION 35, T7S, R21E, S.L.B.&M.  
810' FNL 1813' FWL

**TOPOGRAPHIC  
MAP**

**11 03 06**  
MONTH DAY YEAR

SCALE: 1" = 1000' DRAWN BY: L.K. REVISED: 00-00-00

**D**  
TOPO



**WORKSHEET**  
**APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 01/29/2007

API NO. ASSIGNED: 43-047-38995

WELL NAME: SU PURDY 3M-35-7-21

OPERATOR: QUESTAR EXPLORATION & ( N5085 )

CONTACT: JAN NELSON

PHONE NUMBER: 435-781-4032

**PROPOSED LOCATION:**

NENW 35 070S 210E

SURFACE: 0810 FNL 1813 FWL

BOTTOM: 0810 FNL 1813 FWL

COUNTY: UINTAH

LATITUDE: 40.17268 LONGITUDE: -109.5249

UTM SURF EASTINGS: 625606 NORTHINGS: 4447756

FIELD NAME: WONSITS VALLEY ( 710 )

INSPECT LOCATN BY: / /

Tech Review	Initials	Date
Engineering		
Geology		
Surface		

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU-73681

SURFACE OWNER: 1 - Federal

PROPOSED FORMATION: MNCS

COALBED METHANE WELL? NO

**RECEIVED AND/OR REVIEWED:**

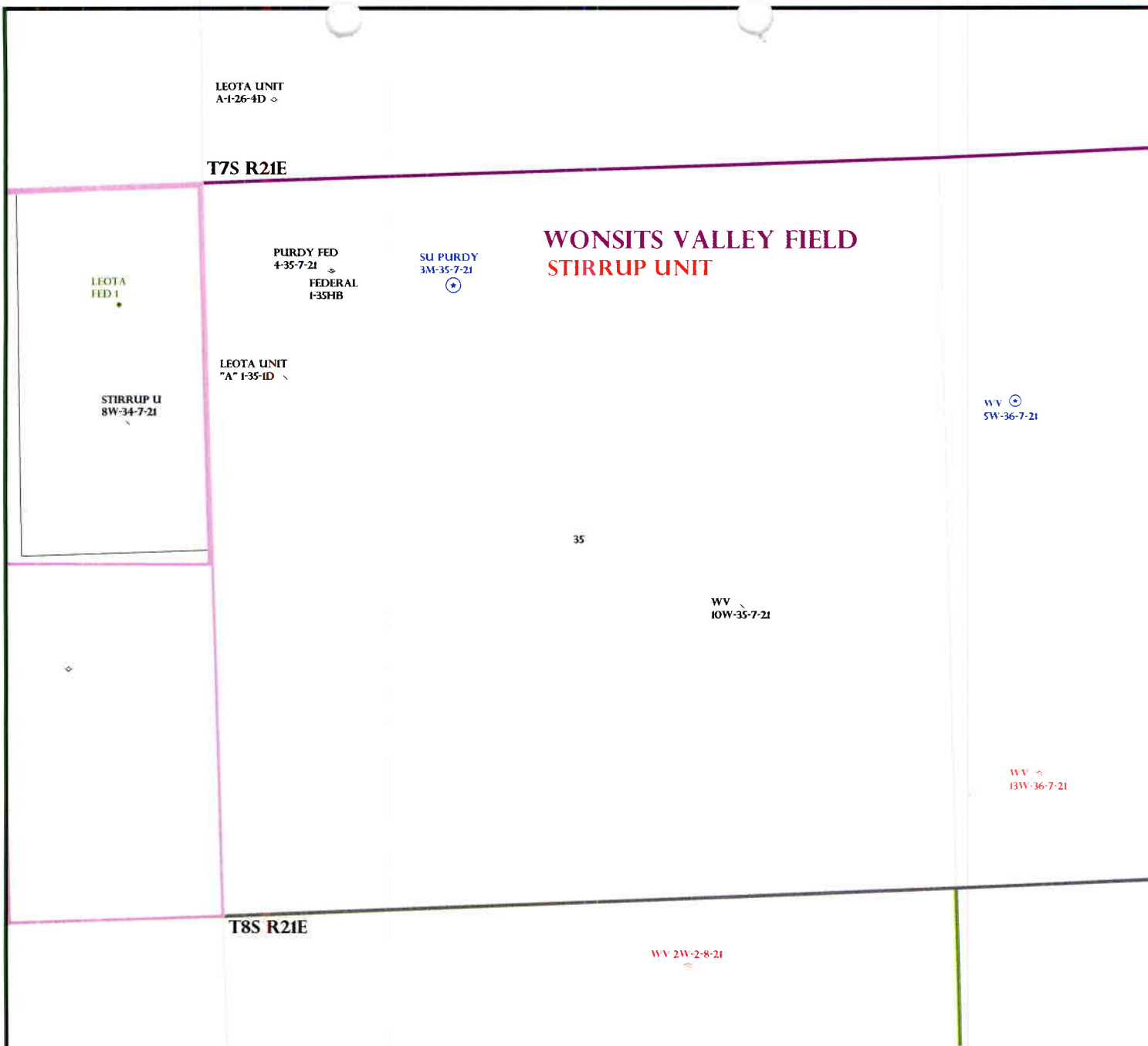
☒ Plat  
☒ Bond: Fed[1] Ind[] Sta[] Fee[]  
(No. ESB000024 )  
☒ Potash (Y/N)  
☒ Oil Shale 190-5 (B) or 190-3 or 190-13  
☒ Water Permit  
(No. 49-2153 )  
☒ RDCC Review (Y/N)  
(Date: )  
☒ Fee Surf Agreement (Y/N)  
☒ Intent to Commingle (Y/N)

**LOCATION AND SITING:**

\_\_\_ R649-2-3.  
Unit: STIRRUP  
☒ R649-3-2. General  
Siting: 460 From Qtr/Qtr & 920' Between Wells  
\_\_\_ R649-3-3. Exception  
\_\_\_ Drilling Unit  
Board Cause No: \_\_\_\_\_  
Eff Date: \_\_\_\_\_  
Siting: \_\_\_\_\_  
\_\_\_ R649-3-11. Directional Drill

COMMENTS: Sop, Separate file

STIPULATIONS: 1. Fed. Approval  
2. Spacing Strip



OPERATOR: QUESTAR EXPL & PROD (N5085)

SEC: 35 T.7S R. 21E

FIELD: WONSITS VALLEY (710)

COUNTY: Uintah

SPACING: R649-3-2 / GENERAL SITING

#### Field Status

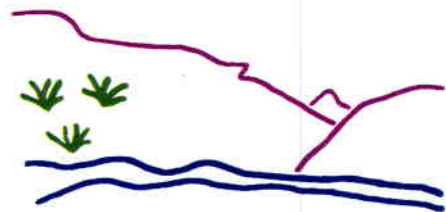
- ABANDONED
- ACTIVE
- COMBINED
- INACTIVE
- PROPOSED
- STORAGE
- TERMINATED

#### Unit Status

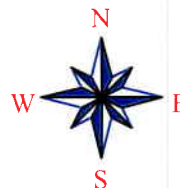
- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PENDING
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

#### Wells Status

- ✂ GAS INJECTION
- ✂ GAS STORAGE
- ✕ LOCATION ABANDONED
- ⊙ NEW LOCATION
- ✂ PLUGGED & ABANDONED
- PRODUCING GAS
- PRODUCING OIL
- ✂ SHUT-IN GAS
- SHUT-IN OIL
- ✂ TEMP. ABANDONED
- TEST WELL
- ⊙ WATER INJECTION
- ⊙ WATER SUPPLY
- ⊙ WATER DISPOSAL
- ⊙ DRILLING



Utah Oil Gas and Mining



PREPARED BY: DIANA MASON  
DATE: 30-JANUARY-2007

# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Utah State Office  
P.O. Box 45155  
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:  
3160  
(UT-922)

January 31, 2007

### Memorandum

To: Assistant District Manager Minerals, Vernal District  
From: Michael Coulthard, Petroleum Engineer  
Subject: 2007 Plan of Development Stirrup Unit, Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following well is planned for calendar year 2007 within the Stirrup Unit, Uintah County, Utah

API#	WELL NAME	LOCATION
(Proposed PZ Mancos)		
43-047-38995 SU Purdy 3M-35-7-21 Sec 35 T07S R21E 0810 FNL 1813 FWL		

This office has no objection to permitting the well at this time.

/s/ Michael L. Coulthard

bcc: File - Stirrup Unit  
Central Files  
Division of Oil Gas and Mining  
Agr. Sec. Chron  
Fluid Chron

MCoulthard:mc:1-31-07



**State of Utah**

**Department of  
Natural Resources**

MICHAEL R. STYLER  
*Executive Director*

**Division of  
Oil, Gas & Mining**

JOHN R. BAZA  
*Division Director*

JON M. HUNTSMAN, JR.  
*Governor*

GARY R. HERBERT  
*Lieutenant Governor*

January 31, 2007

Questar Exploration & Production, Company  
1571 E 1700 S  
Vernal, UT 84078

Re: SU Purdy 3M-35-7-21 Well, 810' FNL, 1813' FWL, NE NW, Sec. 35,  
T. 7 South, R. 21 East, Uintah County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. § 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-38995.

Sincerely,

Gil Hunt  
Associate Director

pab  
Enclosures

cc: Uintah County Assessor (via e-mail)  
Bureau of Land Management, Vernal District Office



**Operator:** Questar Exploration & Production, Company  
**Well Name & Number** SU Purdy 3M-35-7-21  
**API Number:** 43-047-38995  
**Lease:** UTU-73681

**Location:** NE NW                      **Sec.** 35                      **T.** 7 South                      **R.** 21 East

### **Conditions of Approval**

1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

2. Notification Requirements

Notify the Division within 24 hours of spudding the well.

- Contact Carol Daniels at (801) 538-5284.

Notify the Division prior to commencing operations to plug and abandon the well.

- Contact Dan Jarvis at (801) 538-5338

3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.

5. This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED  
SUBMIT IN TRIPLICATE  
VERNAL FIELD OFFICE  
2007 JAN 26 AM 12:48

FORM APPROVED  
OMB NO. 1040-0136  
Expires: February 28, 1995

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. UTU-73681
TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME N/A
2. NAME OF OPERATOR QUESTAR EXPLORATION & PRODUCTION, CO.		7. UNIT AGREEMENT NAME STIRRUP
3. ADDRESS 1571 E. 1700 S. Vernal, Ut 84078		8. FARM OR LEASE NAME, WELL NO. SU PURDY 3M-35-7-21
Contact: Jan Nelson E-Mail: jan.nelson@questar.com		9. API NUMBER: 42-047-28995
Telephone number Phone 435-781-4032 Fax 435-781-4045		10. FIELD AND POOL, OR WILDCAT UNDESIGNATED
4. LOCATION OF WELL (Report location clearly and in accordance with and State requirements*) At Surface 810' FNL 1813' FWL NENW SECTION 35, T7S, R21E At proposed production zone		11. SEC., T, R, M, OR BLK & SURVEY OR AREA SEC. 35, T7S, R21E Mer SLB
14. DISTANCE IN MILES FROM NEAREST TOWN OR POSTOFFICE* 35 +/- SOUTHWEST OF VERNAL, UTAH		12. COUNTY OR PARISH Utah
15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (also to nearest drig, unit line if any) 810' +/-		13. STATE UT
16. NO. OF ACRES IN LEASE 640.00		17. NO. OF ACRES ASSIGNED TO THIS WELL 40
18. DISTANCE FROM PROPOSED location to nearest well, drilling, completed, applied for, on this lease, ft		20. BLM/BIA Bond No. on file ESB000024
19. PROPOSED DEPTH 16,700'		23. Estimated duration 90 days
21. ELEVATIONS (Show whether DF, RT, GR, ect.) 5091.5' GR		22. DATE WORK WILL START ASAP
24. Attachments		

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan
- A surface Use Plan (if location is on National Forest System Lands. the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification.
- Such other site specific information and/or plans as may be required by the authorized officer.

SIGNED Jan Nelson Name (printed/typed) Jan Nelson

DATE 1-25-07

TITLE Regulatory Affairs

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

Application approval does not warrant or certify the applicant holds any legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY [Signature] TITLE Assistant Field Manager  
Lands & Mineral Resources

DATE 5-18-2007

\*See Instructions On Reverse Side

Title 18 U.S.C Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

VERNAL FIELD OFFICE

RECEIVED  
JUN 13 2007

DIV. OF OIL, GAS & MINING  
CONFIDENTIAL

07JUN0692A  
NOTICE OF APPROVAL

no nos Posted 4/3/07  
CONDITIONS OF APPROVAL ATTACHED

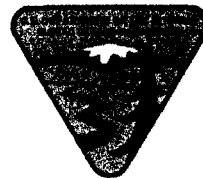


UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
VERNAL FIELD OFFICE

170 South 500 East

VERNAL, UT 84078

(435) 781-4400



**CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL**

Company: Questar Exploration & Production  
Well No: SU PURDY 3M-35-7-21  
API No: 43-047-38995

Location: NENW, Sec. 35, T7S, R21E  
Lease No: UTU- 73681  
Agreement: STIRRUP UNIT

Title	Name	Office Phone Number	Cell Phone Number
Petroleum Engineer:	Matt Baker	(435) 781-4490	(435) 828-4470
Petroleum Engineer:	Michael Lee	(435) 781-4432	(435) 828-7875
Petroleum Engineer:	James Ashley	(435) 781-4470	(435) 828-7874
Petroleum Engineer:	Ryan Angus	(435) 781-4430	(435) 828-7368
Supervisory Petroleum Technician:	Jamie Sparger	(435) 781-4502	(435) 828-3913
NRS/Enviro Scientist:	Paul Buhler	(435) 781-4475	(435) 828-4029
NRS/Enviro Scientist:	Karl Wright	(435) 781-4484	
NRS/Enviro Scientist:	Holly Villa	(435) 781-4404	
NRS/Enviro Scientist:	Melissa Hawk	(435) 781-4476	(435) 828-7381
NRS/Enviro Scientist:	Chuck MacDonald	(435) 781-4441	(435) 828-7481
NRS/Enviro Scientist:	Jannice Cutler	(435) 781-3400	
NRS/Enviro Scientist:	Michael Cutler	(435) 781-3401	
NRS/Enviro Scientist:	Anna Figueroa	(435) 781-3407	
NRS/Enviro Scientist:	Verlyn Pindell	(435) 781-3402	
NRS/Enviro Scientist:	Darren Williams	(435) 781-4447	
NRS/Enviro Scientist:	Nathan Packer	(435) 781-3405	

Fax: (435) 781-4410

**A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR  
FIELD REPRESENTATIVE TO INSURE COMPLIANCE**

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. **This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.**

**NOTIFICATION REQUIREMENTS**

Location Construction (Notify Environmental Scientist)	- Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	- Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	- Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	- Twenty-Four (24) hours prior to running casing and cementing all casing strings.
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	- Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	- Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

***SURFACE USE PROGRAM  
CONDITIONS OF APPROVAL (COAs)***

**Site Specific Conditions of Approval**

None

**General Surface COA**

- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop work and contact the Authorized Officer (AO). A report will be prepared by a BLM permitted paleontologist and submitted to the AO at the completion of surface disturbing activities.

## **DOWNHOLE CONDITIONS OF APPROVAL**

### **SITE SPECIFIC DOWNHOLE CONDITIONS OF APPROVAL**

- An approved Sundry Notice is required before adding any oil to the drilling mud.
- A formation integrity test shall be performed at the intermediate casing shoe after drilling 20 feet or less.
- The intermediate casing shall be cemented to surface.

**All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to.** The following items are emphasized:

### **DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS**

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- **Cement baskets shall not be run on surface casing.**
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person

making the report (along with a telephone number) should the BLM need to obtain additional information.

- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- Chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- **Please submit an electronic copy of all other logs run on this well in LAS format to UT\_VN\_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.**
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

## OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.
- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
  - Operator name, address, and telephone number.
  - Well name and number.
  - Well location (¼¼, Sec., Twn, Rng, and P.M.).
  - Date well was placed in a producing status (date of first production for which royalty will be paid).
  - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
  - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
  - Unit agreement and/or participating area name and number, if applicable.
  - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or

data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**SUNDRY NOTICES AND REPORTS ON WELLS**

**Do not use this form for proposals to drill or reenter an abandoned well. Use Form 3160-3 (APD) for such proposals.**

FORM APPROVED  
OMB No. 1004-0135  
Expires July 31, 1996

5. Lease Serial No.

UTU-73681

6. If Indian, Allottee or Tribe Name

N/A

7. If Unit or CA/Agreement, Name and/or No.

STIRRUP

8. Well Name and No.

SU PURDY 3M-35-7-21

9. API Well No.

43-047-38995

10. Field and Pool, or Exploratory Area

WONSITS VALLEY

11. County or Parish, State

UINTAH

**SUBMIT IN TRIPLICATE - Other Instructions on reverse side**

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

QUESTAR EXPLORATION & PRODUCTION, CO.

3a. Address

11002 E. 17500 S. VERNAL, UT 84078

3b. Phone No. (include area code)

435-781-4331

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

1409' FNL 1378' FEL SWNE SECTION 35, T8S, R22E

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize <input type="checkbox"/> Deepen <input type="checkbox"/> Production (Start/Resume) <input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing <input type="checkbox"/> Fracture Treat <input type="checkbox"/> Reclamation <input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair <input type="checkbox"/> New Construction <input type="checkbox"/> Recomplete <input type="checkbox"/> Other
	<input checked="" type="checkbox"/> Change Plans <input type="checkbox"/> Plug and Abandon <input type="checkbox"/> Temporarily Abandon
	<input type="checkbox"/> Convert to Injection <input type="checkbox"/> Plug Back <input type="checkbox"/> Water Disposal

13. Describe Proposed or Completed Operations (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once Testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

QUESTAR EXPLORATION AND PRODUCTION COMPANY (QEP) REQUEST PERMISSION TO CHANGE THE DRILLING PLANS FOR THIS WELL AND TO USE OIL BASE MUD FOR THE DRILLING OF THE FINAL SECTION OF THIS WELL TO IMPROVE DRILLING EFFICIENCY, WELLBORE STABILITY AND TO PROMOTE A GOOD CEMENT JOB OF THE PRODUCTION CASING. ATTACHED IS A DRILLING PLAN, WELLBORE DIAGRAM, DRILLING FLUID PROPOSAL AND A PROPOSAL FOR PROCESSING AND DISPOSAL OF THE OIL BASE MUD.

QUESTAR EXPLORATION AND PRODUCTION COMPANY IS REQUESTS PERMISSION TO MODIFY THE PAD LAYOUT IN ORDER TO ACCOMMODATE THE LARGER DRILLING RIG. A REVISED LOCATION LAYOUT IS ATTACHED.

QUESTAR EXPLORATION AND PRODUCTION COMPANY IS REQUESTING TO CHANGE THE WELL NAME FROM SU PURDY 3M-35-7-21 TO TU 3-35-7-21.

FOR TECHNICAL QUESTIONS, PLEASE CONTACT JIM DAVIDSON, CHIEF DRILLING ENGINEER FOR QEP, AT (303) 308-3090.

14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed)

Jan Nelson

Signature

Title

Regulatory Affairs

Date

September 12, 2007

**THIS SPACE FOR FEDERAL OR STATE USE**

Approved by

Title

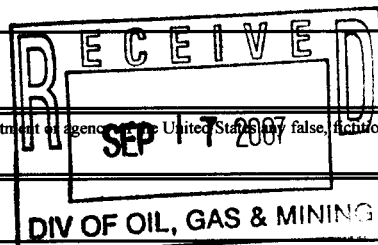
Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on reverse)



**CONFIDENTIAL**

DRILLING PROGRAM

ONSHORE OIL & GAS ORDER NO. 1  
Approval of Operations on Onshore  
Federal Oil and Gas Leases

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil and Gas No. 1, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished the field representative to insure compliance.

1. **Formation Tops**

The estimated tops of important geologic markers are as follows:

<u>Formation</u>	<u>Depth</u>
Uinta	Surface
Green River	3,277'
Wasatch	6,942'
Mesaverde	9,967'
Sego	12,232'
Castlegate	12,357'
Blackhawk	12,717'
Mancos Shale	13,162'
Mancos B	13,607'
Frontier	16,302'
Dakota Silt	17,287'
Dakota	17,484'
Morrison	17,884'
TD	17,950'

2. **Anticipated Depths of Oil Gas Water and Other Mineral Bearing Zones**

The estimated depths at which the top and bottom of the anticipated water, oil, gas. Or other mineral bearing formations are expected to be encountered are as follows:

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
Gas	Wasatch	6,942'
Gas	Mesaverde	9,967'
Gas	Blackhawk	12,717'
Gas	Mancos Shale	13,162'
Gas	Mancos B	13,607'
Gas	Dakota	17,484'

## DRILLING PROGRAM

All fresh water and prospectively valuable minerals encountered during drilling, will be recorded by depth and adequately protected. All oil and gas shows will be tested to determine commercial potential.

All water shows and water-bearing sands will be reported to the BLM in Vernal, Utah. Copies of State of Utah form OGC-8-X are acceptable. If flows are detected, samples will be submitted to the BLM along with any water analyses conducted. Fresh water will be obtained from Wonsits Valley water right # A36125 (which was filed on May 7, 1964,) or Red Wash water right # 49-2153 (which was filed on March 25, 1960). It was determined by the Fish and Wildlife Service that any water right number filed before 1989 is not depleting to the Upper Colorado River System, to supply fresh water for drilling purposes. All water resulting from drilling operations will be disposed of at Red Wash Central Battery Disposal Site; SWSE, Section 27, T7S, R23E or Wonsits Valley Disposal Site; SWNW, Section 12, T8S, R21E.

### 3. **Operator's Specification for Pressure Control Equipment:**

- A. 13-5/8" 5000 psi double gate, 5,000 psi annular BOP (schematic included) from surface hole to 7" casing point.
- B. 13-5/8" 10,000 psi double gate, 10,000 psi single gate, 10,000 psi annular BOP (schematic included) from 7" casing point to total depth.
- C. Functional test daily
- D. All casing strings shall be pressure tested (0.2 psi/foot or 1500 psi, whichever is greater) prior to drilling the plug after cementing; test pressure shall not exceed the internal yield pressure of the casing.
- E. Ram type preventers and associated equipment shall be tested to approved stack working pressure if isolated by test plug or to 50 percent of internal yield pressure of casing whichever is less. BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc..., for a 10M system and individual components shall be operable as designed.

## DRILLING PROGRAM

### 4. Casing Design:

Hole Size	Csg. Size	Top (MD)	Bottom (MD)	Wt.	Grade	Thread	Cond.
26"	20"	sfc	40-60'	Steel	Cond.	None	Used
17-1/2"	13-3/8	sfc	500'	54.5	K-55	STC	New
11"	9-5/8"	sfc	10,000'	47	HCP-110	SLIJ II*	New
8-1/2"	7"	9700'	13,600'	29* SDrift	HCP-110	LTC	New
6-1/8"	4-1/2"	sfc	13,700'	15.1	P-110	LTC	New
6-1/8"	4-1/2"	13,700'	16,700'	15.1	Q-125	LTC	New

SLIJ II Threads have collar OD of 9.777"

Casing Strengths:				Collapse	Burst	Tensile (minimum)
13-3/8"	54.5 lb.	K-55	STC	1,130 psi	2,730 psi	547,000 lb.
9-5/8"	47 lb.	HCP-110	LTC	7,100 psi	9,440 psi	1,213,000 lb.
7"	29 lb.*	HCP-110	LTC	9,200 psi	11,220 psi	797,000 lb.
4-1/2"	15.1 lb.	P-110	LTC	14,350 psi	14,420 psi	406,000 lb.
4-1/2"	15.1 lb.	Q-125	LTC	15,840 psi	16,380 psi	438,000 lb.

\* Special Drift

#### MINIMUM DESIGN FACTORS:

COLLAPSE: 1.125

BURST: 1.10

TENSION: 1.80

Area Fracture Gradient: 0.9 psi/foot

Maximum anticipated mud weight: 15.4 ppg

Maximum surface treating pressure: 12,500 psi

DRILLING PROGRAM

5. **Auxiliary Equipment**

- A. Kelly Cock – yes
- B. Float at the bit – yes
- C. Monitoring equipment on the mud system – visually and/or PVT/Flow Show
- D. Full opening safety valve on the rig floor – yes
- E. Rotating Head – yes  
If drilling with air the following will be used:
- F. The blooie line shall be at least 6” in diameter and extend at least 100’ from the well bore into the reserve/blooie pit.
- G. Blooie line ignition shall be provided by a continuous pilot (ignited when drilling below 500’).
- H. Compressor shall be tied directly to the blooie line through a manifold.
- I. A mister with a continuous stream of water shall be installed near the end of the blooie lines for dust suppression.

Surface hole will be drilled with air, air/mist, foam, or mud depending on hole conditions. Drilling below surface casing will be with water based drilling fluids consisting primarily of fresh water, bentonite, lignite, caustic, lime, soda ash and polymers. No chromates will be used. Oil base mud will be used to drill the final section of the hole. The water based and oil based drilling system specifics are attached to this APD. Maximum anticipated mud weight is 15.4 ppg.

No minimum quantity of weight material will be required to be kept on location.

PVT/Flow Show will be used from base of surface casing to TD.

Gas detector will be used from surface casing depth to TD.

6. **Testing, logging and coring program**

- A. Cores – none anticipated
- B. DST – none anticipated
- C. Logging – Mud logging – 500’ to TD  
GR-SP-Induction, Neutron Density, FMI/Sonic Scanner

## DRILLING PROGRAM

- D. Formation and Completion Interval: Mancos interval, final determination of completion will be made by analysis of logs.  
Stimulation – Stimulation will be designed for the particular area of interest as encountered.

### 7. Cementing Program

#### **20" Conductor:**

Cement to surface with construction cement.

#### **13-3/8" Surface Casing: sfc – 500' (MD)**

**Slurry:** 0' – 500'. 610 sxs (731 cu ft) Premium cement + 0.25 lbs/sk Flocele + 2% CaCl<sub>2</sub>  
Slurry wt: 15.6 ppg, slurry yield: 1.20 ft<sup>3</sup>/sx, slurry volume: 17-1/2" hole + 100% excess.

#### **9-5/8" Intermediate Casing: sfc – 6,800' (MD)**

**Lead Slurry:** 0' – 6,300'. 895 sks (1315 cu. ft.) Foamed Lead 50/50 Poz cement + 0.1 % FDP-C766-05 (Low Fluid Loss Control) + 5 #/sx Silicate Compacted + 20 % SSA-1 + 0.1 % Versaset + 1.5 % Zonesalant 2000 (Foamer) Slurry wt: 14.3 ppg, (unfoamed) Slurry yield: 1.47 ft<sup>3</sup>/sk (unfoamed), Slurry volume: 12-1/4" hole + 35 % excess.

**Tail Slurry:** 6,300' – 6,800'. 156 sks (41 bbls) Tail 50/50 Poz cement + 0.1 % FDP-C766-05 (Low Fluid Loss Control) + 5 #/sx Silicate Compacted + 20 % SSA-1 + 0.1 % Versaset Slurry wt: 14.3 ppg, Slurry yield: 1.47 ft<sup>3</sup>/sk, Slurry volume: 12-1/4" hole + 35% excess.

#### **7" Intermediate Casing: 6,300 - 13,300' (MD)**

**Foamed Lead Slurry 2:** 6,300' – 13,300. 698 sks (1110 cu ft) 50/50 Poz Premium + 20% SSA-1 + 3 % silicalite compacted + 0.5% Halad 344 + 0.2% Halad 413 + 0.1% HR-12 + 0.7% Super CBL + 0.2% Suspend Slurry wt: 14.0 ppg,, Slurry yield: 1.59 ft<sup>3</sup>/sk, Slurry volume: 8-1/2" hole + 25% excess.

#### **4-1/2" Production Casing: sfc - 16,700' (MD)**

**Lead/Tail Slurry:** 6,500 - 17,950'. 977 sks (1455 cu ft) Premium Cement + 17.5% SSA-1, + 4% Microbond HT, + 0.2% Halad 344 + 0.5% Halad 413, + 0.3% CFR-3, + 0.9% HR-12, + 0.2% Super CBL, + 0.2% Suspend HT, 17.5% SSA-2. Slurry wt: 16.2 ppg, Slurry yield: 1.49 ft<sup>3</sup>/sk, Slurry volume: 6-1/8" hole + 35% in open hole section.

## DRILLING PROGRAM

\*Final cement volumes to be calculated from caliper log with an attempt to be made to circulate cement to the surface on the intermediate string and 5,000' on the production string. A bond log will be run across the zone of interest and across zones as required by the authorized officer to insure protection of natural resources.

### 8. **Anticipated Abnormal Pressures and Temperatures, Other Potential Hazards**

No abnormal temperatures or pressures are anticipated. No H<sub>2</sub>S has been encountered in or known to exist from previous wells drilled to similar depths in the general area. Maximum anticipated bottom hole pressure equals approximately 13,000 psi. Maximum anticipated bottom hole temperature is 320° F.

### 9. **ADDITIONAL INFORMATION FOR OIL BASE MUD:**

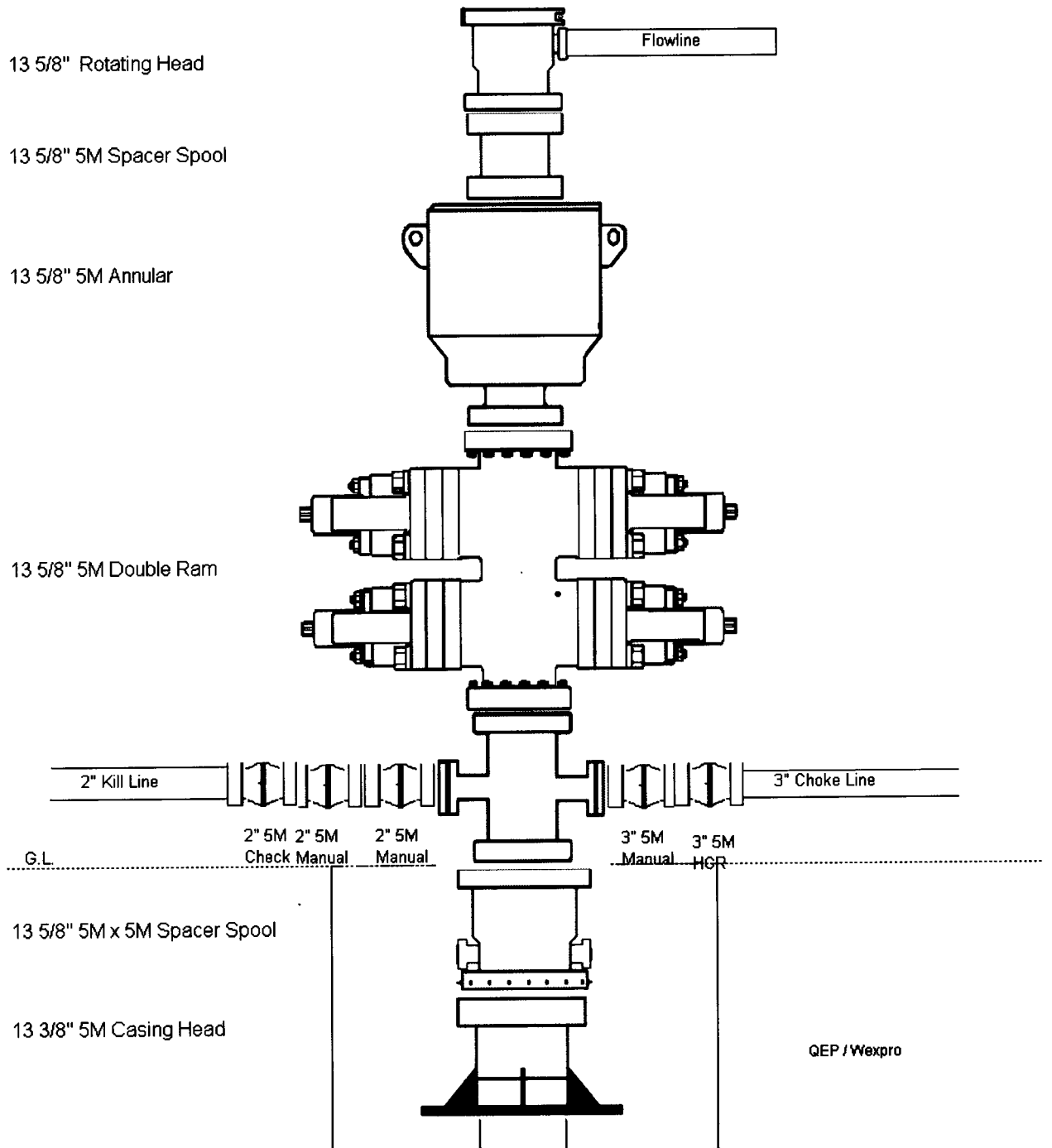
- A. See attached diagram of well pad layout. A reserve pit will be constructed for this location. This pit will be constructed so that a minimum of two vertical feet of freeboard exists above the top of the pit at all times and at least one-half of the holding capacity will be below ground level. The pit will be lined with a synthetic reinforced liner, 30 millimeters thick, with sufficient bedding used to cover any rocks prior to putting any fluids into the pit. The pad will be designed so that runoff from adjacent slopes does not flow into the reserve pit. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. At the beginning of drilling operations this reserve pit will have an open-ended dike placed in the pit that allows the fluids to migrate from one side of the pit to the other during the drilling of the surface and intermediate hole using water based mud. At the time that operations begin to drill the production hole with oil base mud, this dike will be extended, dividing the pit into two distinct, isolated halves allowing no migration of fluids from one side to the other. At that time all fluids will be removed from the end of the pit to be used as a cuttings pit. This cuttings pit will be used for oil based cuttings generated during drilling of the production hole.
- B. Oil-base mud will be mixed in the closed circulating system and transferred to four 500-bbl tanks on location for storage prior to and after drilling operations. Drip pans will be installed below the rotary beams on the substructure and can be viewed on site from the cellar area. As the production section of the hole is drilled, the cuttings transported to the surface with the drilling fluid will be mechanically separated from the drilling fluid as waste by two shale-shakers and then cleaned/dried via a mud cleaner and/or centrifuge. These separated cuttings will be collected in a steel catch tank once they leave the closed circulating system and transported and placed into the cuttings half of the reserve pit.

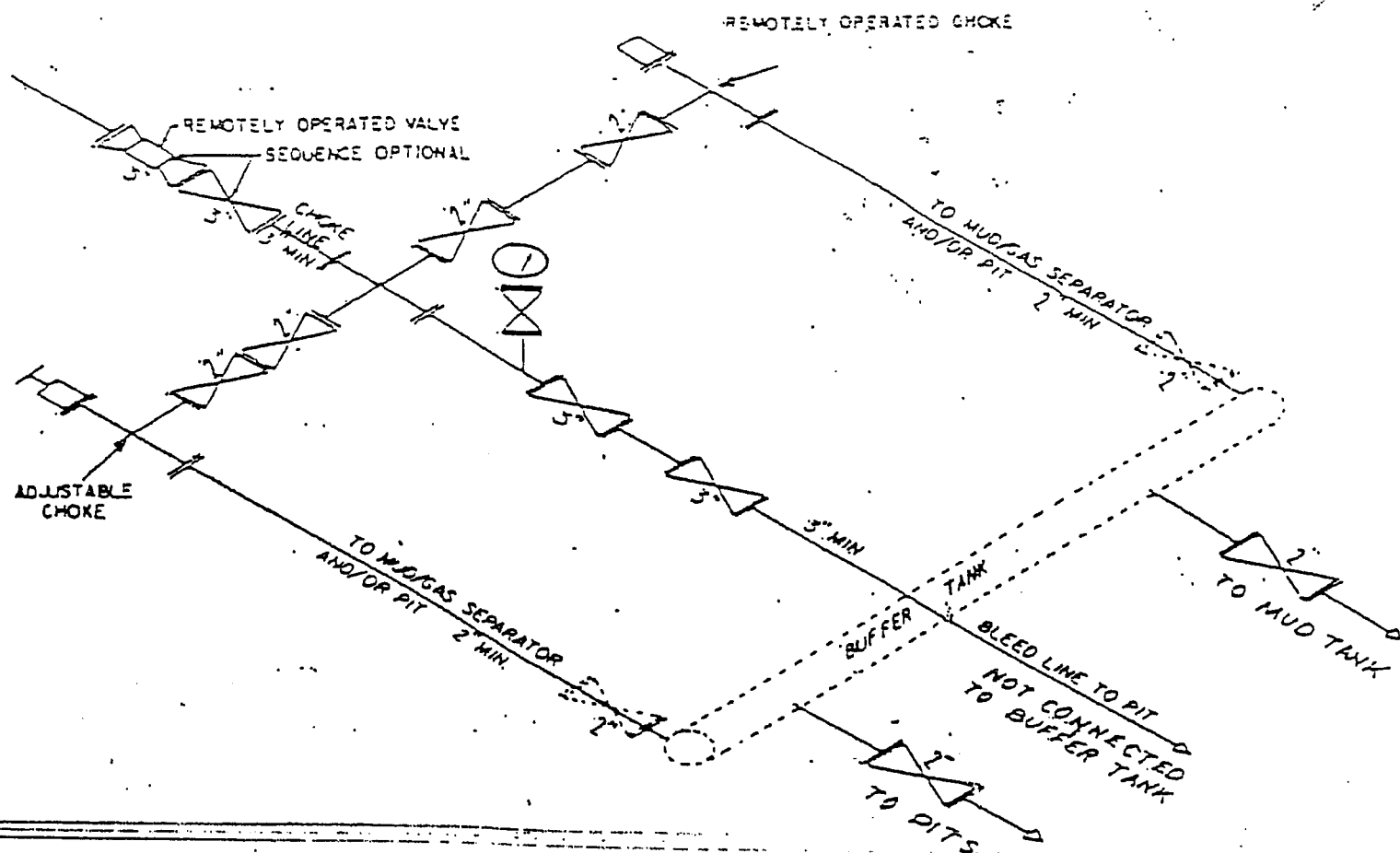
### DRILLING PROGRAM

- C.** Plastic material will underlay the rig, oil base mud/diesel storage tanks and mud pits. All tanks on location will be placed inside of berms. Any oily waste fluids and sediments generated at the work site during drilling operations or when cleaning the fluid containment system after drilling will also be placed into the cuttings half of the pit.
- D.** All rig ditches will be lined and directed to a lined sump for fluid recovery. A drip pan will be installed on the BOP stack, a mud bucket will be utilized as needed on connections and a vacuum system will be used on the rig floor for fluid recovery in those areas.
- E.** Once all waste has been placed in the cuttings portion of the pit and all necessary approvals obtained, the oilfield waste management consultant Soli-Bond or a similar company will mobilize equipment and personnel to the site to perform the cement based solidification/stabilization process in-situ for encapsulation. Soil will be backfilled over the processed material used on the cuttings side of the pit and that portion of the pit area will be returned to the existing grade bordering the pit. Please see the attached Soli-Bond Proposal for Processing and Disposal of Drilling Waste for specific details. The half of the reserve pit containing water base materials will be left to evaporate and will be closed and reclaimed at the time that portion of the pit is dry.



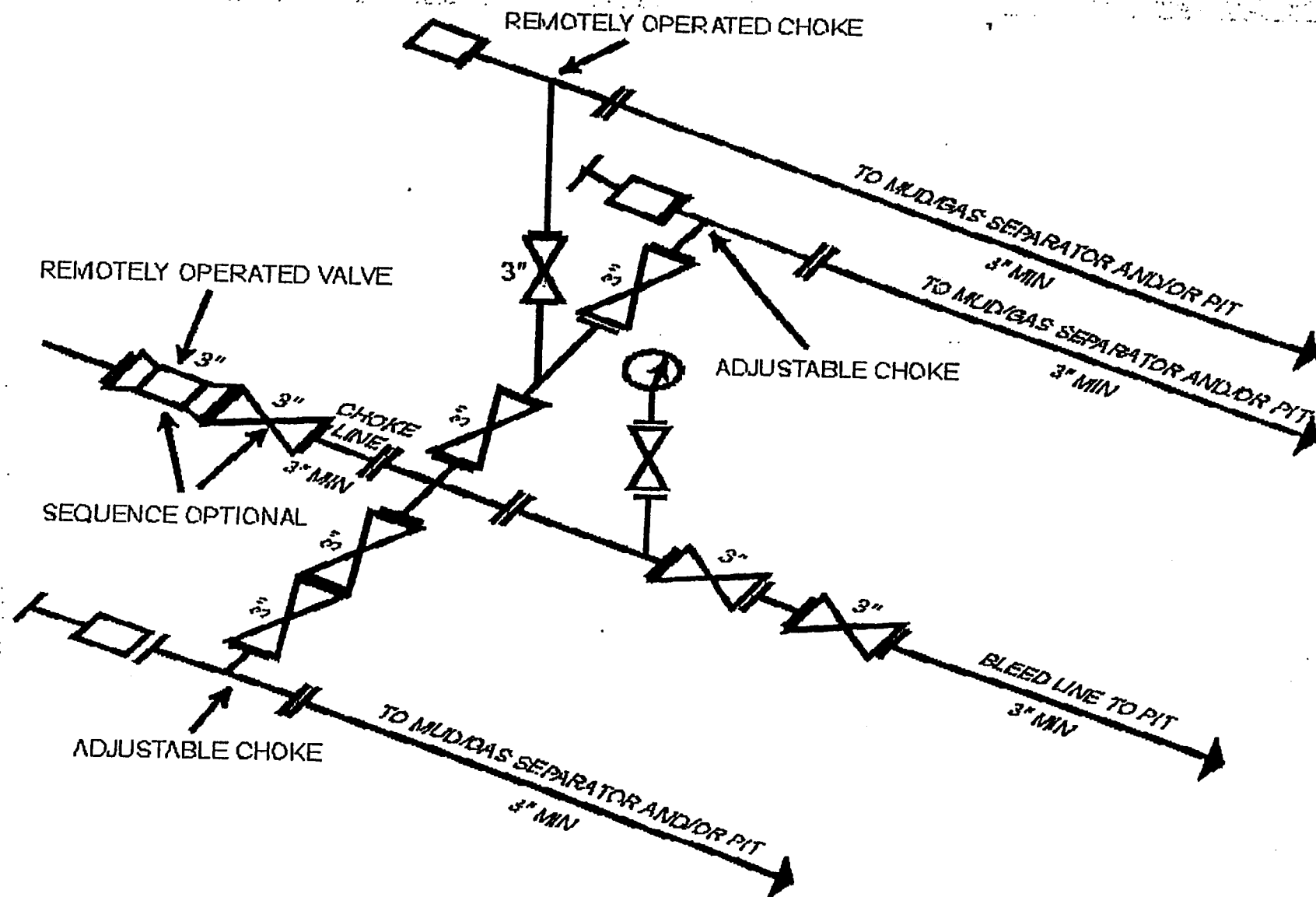
# DRILLING PROGRAM





② 5M CHOKE MANIFOLD EQUIPMENT — CONFIGURATION OF CHOKES MAY VARY

Attachment I. Diagrams of Choke Manifold Equipment

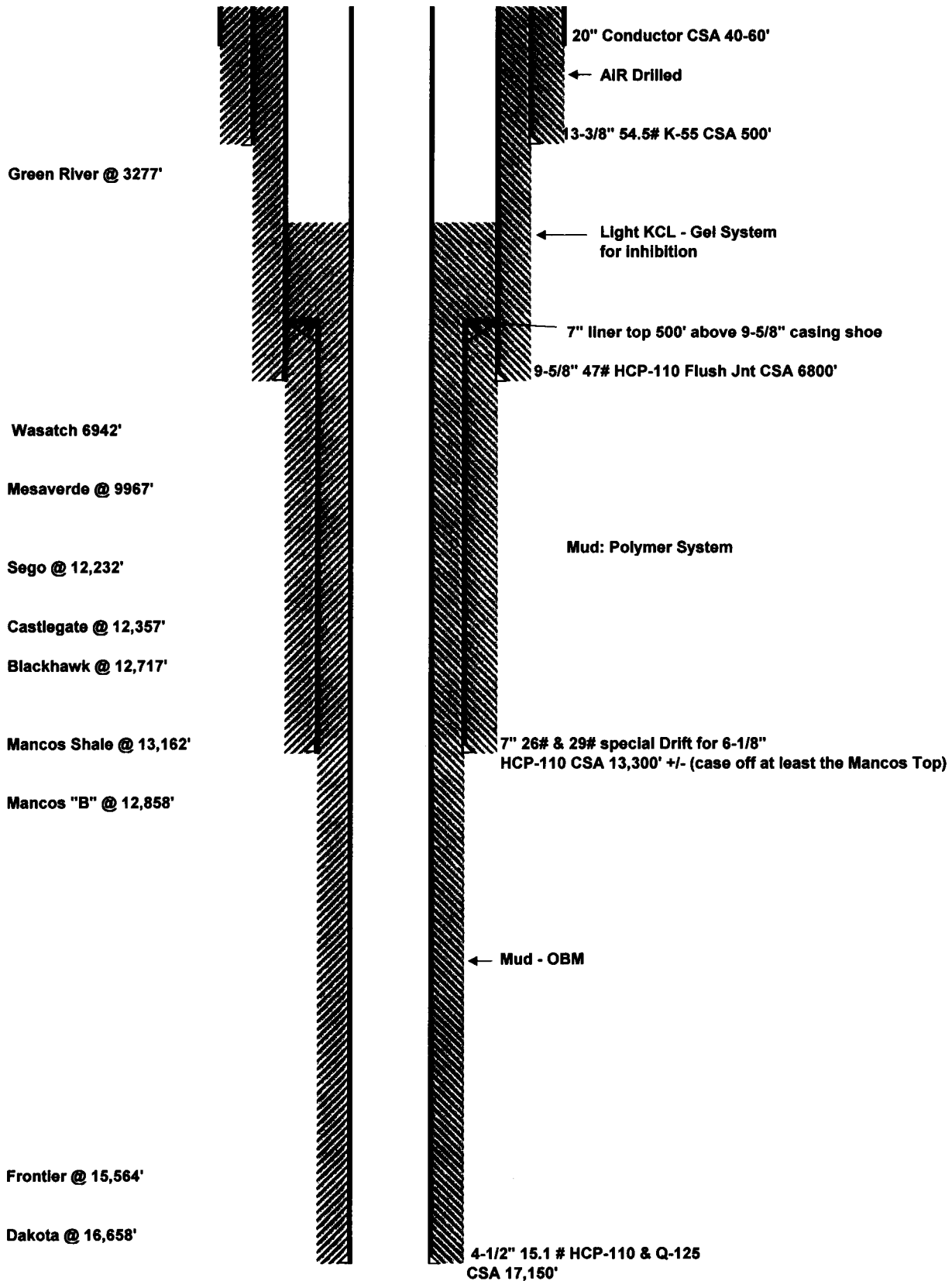


I-4 10M and 15M Choke Manifold Equipment -- Configuration of chokes may vary

[54 FR 39528, Sept. 27, 1989]

Last Updated March 25, 1997 by John Broderick

# **TU 3-35-7-21**





**Questar  
Exploration &  
Production Company**

***TU 3-35-7-21***

***Sec 35-T7S-R21E  
Uintah County, Utah***

***Drilling Fluids Program***

***410 17<sup>th</sup> Street, Suite 460 Denver, CO 80202  
(303) 623-2205 (720) 904-7970 Fax***



## Newpark Drilling Fluids, LP

410 17<sup>th</sup> Street, Suite 460

■ Denver, Colorado 80202

■ (303) 623-2205

■ FAX (720) 904-7970

September 6, 2007

Mr. Jim Davidson  
Chief Drilling Engineer  
Questar Exploration & Production  
1331 17th Street, Suite 800  
Denver, Colorado 80202

RE: TU 3-35-7-21  
Sec 35-T7S-R21E  
Uintah Co, Utah

Mr. Davidson:

Newpark Drilling Fluids, LP is pleased to present the enclosed revised recommended drilling fluids program for the TU 3-35-7-21 well to be drilled in Uintah County, Utah.

The Surface Interval will be drilled with air to a depth of 500 ft.

For the Intermediate Interval, it is recommended to drill out with 3% KCL water pumping NewGel sweeps as needed for hole cleaning. At 5500-6000 ft before drilling to intermediate casing depth at 6800', mud up to a 3% KCL/Polymer system. Trona water flows in this area may require a mud weight of 9.5 ppg to control. Use this fluid to casing point at 6,800 ft.

In the Liner interval, drill out with the fluid from the previous interval. Discontinue additions of KCL. Allow KCL to deplete through dilution allowing the system to convert to a NewPHPA/Polymer system. Mud weight in this interval is expected to be in the 13.5-14.5 ppg range at the 13,300 ft liner interval T.D.

In the Production interval, displace to a 13.5-14.5 ppg OptiDrill OBM system. Maintain fluid density as low as possible to increase penetration rates and reduce the possibility of lost circulation. Use high weight pills for well control during; trips, logs, and casing operations. Mud weight at T.D. is expected to be at +/- 15.0 ppg.

The projected drilling time for this project is 65-70 days with an estimated material and engineering cost of \$500,000.00 assuming no unusual delays or problems are encountered. The estimate is based on minimal losses and a 15.0 ppg mud weight at TD. Costs will increase dramatically if severe losses are encountered.

All sack material and bulk barite will be furnished from our Grand Junction, Colorado facility, with OBM supplied from Newpark's Boulder, WY facility.

If you have any questions following your review of this proposal, please call.

Regards,

Estes Ward  
Operations Manager  
Newpark Drilling Fluids, LP

# Project Summary

**Questar**  
**Exploration & Production**  
**TU 3-35-7-21**  
**Sec 35-T7S-R21E**  
**Uintah, County Utah**

Depth (ft)	Formations	Interval Comments	Mud Weight (ppg)	Mud Properties
500'	Uinta <b>Surface T.D.</b>	Hole size: 17 1/2" / Casing: 13 3/8"  <b>AIR DRILLED</b>	NA	NA
3,277'	Green River Mahogeny	<b>KCL/NewPHPA</b> Hole size: 11.0" / Casing: 9 5/8" Flush Joint  Drill out with water, adding KCL for 2-3%. Pump pre-hydrated NewGel sweeps for hole cleaning. For seepage, incorporate fine LCM into the NewGel sweeps.  Begin mud up operations at +/- 5500 ft or before drilling into the Wasatch. It is recommended to have the KCL % at 3.0 or > before drilling into the Wasatch. Maintain the fluid loss at 8 mls with AquaBloc/NewPac. Maintain rheology control with NewEdge, CFL II, and DrillThin. Maintain hardness at 100 mg/l or > with lime/Gyp additions. As seepage is encountered, pump LCM sweeps as conditions dictate. Mud weight at T.D. is expected to be in the 9.4-9.5 ppg range	8.6  9.0	Vis (sec/qt): 28-40 PV (cp): 0-12 YP (#s/100ft²): 0-10 FL (ml/30 min): 8-10 LGS %: 3-5 pH: 10.0-10.5
6,800'	<b>Intermediate T.D.</b>		9.5	Cl (mg/l): 11-15K KCL %: 2.5-3.0
6,942' 9,967'	Wasatch Mesa Verde	<b>NewPHPA</b> Hole size: 8.5" / Liner: 7"	9.8	Vis (sec/qt): 40-45 PV (cp): 12-20
12,232'	Sego Bucktongue	Drill out, running fresh water, maintaining the KCL at 3 % until the Mesa Verde top at 9,967'. Maintain properties as recommended and increasing the PHPA concentration to 1.0 ppb. Lost circulation may be a problem in this interval. If lost circulation is encountered, pump LCM pills as needed. If LCM pills will not control losses, by-pass the shakers and increase the LCM concentration in the system as needed. If severe lost circulation is encountered, consider a DynaPlug squeeze.	10.4	YP (#s/100ft²): 10-12
12,357' 12,717'	Castlegate Blackhawk	Hole instability may be encountered in the Mesa Verde. Monitor torque, pump pressure, connection fill, and trip conditions for indications of hole instability and consider adding Asphalt if hole conditions dictate.	11.4 11.6	FL (ml/30 min): 6-8 LGS %: 3-5 pH: 10.0-10.5
13,162'	Mancos Shale		13.5	Cl (mg/l): 11-15K
13,300' +/-	<b>Liner T.D.</b>		14.0	KCL %: 3 (until 9,967')
13,858' MD	Mancos B	<b>OptiDrill OBM</b> Hole size: 7.0" / Casing: 4-1/2"  Drill out with the OptiDrill system, treating cement contamination as needed with OptiWet to prevent shaker blinding.  Maintain hole cleaning during high ROP's with high viscosity sweeps. Use a 1:1 ratio of OptiVis RM and OptiVis.	13.5	PV (cp): 25-35 YP (lbs/100ft²): 8-10 HPHT (mls/30 min.): <20 O/W : 80:20 - 85:15
15,564' MD	Frontier equiv.	CO2 in the gas stream while drilling under balanced will require additional Lime, emulsifiers and wetting agent.		ES: 500+
16,658' MD	Dakota Silt Dakota			Lime: 2-4 ppb
17,150' MD	<b>Total Depth</b>	Maintain mud weight as needed for well control. Spot high weight ECD pills for trips, logs, and casing operations.	15.5	LGS %: < 6



**Newpark Drilling Fluids, LP**

410 17th Street, Suite 460  
 Denver, CO. 80202  
 (303) 623-2205 FAX (720) 904-7970

# Project Summary

Questar  
Exploration & Production  
TU 3-35-7-21  
Sec 35-T7S-R21E  
Uintah, County Utah

## DRILLING FLUID PROPERTIES

### Surface Hole: Air Drilled

Hole Size (in)	TVD (ft)	Mud Weight (ppg)	Plastic Viscosity (cp)	Yield Point (lb/100ft <sup>2</sup> )	API Fluid Loss (ml/30min)	Total Solids (%)
17 1/2 "	0-500'	NA	NA	NA	NA	NA

### Intermediate Hole: KCL Water NewGel Sweeps - KCL/PHPA

Hole Size (in)	MD (ft)	Mud Weight (ppg)	Plastic Viscosity (cp)	Yield Point (lb/100ft <sup>2</sup> )	API Fluid Loss (ml/30min)	KCL (%)	LGS Solids (%)
11"	500-5,500'	8.5-8.6	NA	NA	NA	2-3	< 1%
11 "	5,500'-6,800'	8.6-9.4	8-12	10-12	8-10	3.0	3-6

### Liner Interval: NewPHPA

Hole Size (in)	MD (ft)	Mud Weight (ppg)	Plastic Viscosity (cp)	Yield Point (lb/100ft <sup>2</sup> )	API Fluid Loss (ml/30min)	KCL (%)	LGS Solids (%)
8 1/2"	6,800'-9,967'	9.5-10.0	8-12	10-12	6-8	3.0	3-6
8 1/2 "	9,967'-13,300'	13.0-13.5	15-25	10-15	6-8	0	3-6

### Production Interval: OptiDrill OBM

Hole Size (in)	MD (ft)	Mud Weight (ppg)	Plastic Viscosity (cp)	Yield Point (lb/100ft <sup>2</sup> )	O/W Ratio (%)	HPHT Fluid Loss (ml/30min)	CaCl (mg/l) X 10,000	Electrical Stability (mv)	LGS Solids (%)
7.0 "	13,300'-17,150'	15.0-15.5	25-35	8-12	85/15	12-15	250-350	500 +	3-6

- Drilling fluid properties are guidelines only.
- Mud weights for guidelines only, allow hole conditions to dictate actual mud weights.
- Hole conditions should be closely monitored and product mix adjusted accordingly.



**Newpark Drilling Fluids, LP**

410 17th Street, Suite 460  
Denver, CO. 80202  
(303) 623-2205 FAX (720) 904-7970



# Intermediate Interval

## 11" Hole (500' - 6,800')

**Questar**  
**Exploration & Production**  
**TU 3-35-7-21**  
**Sec 35-T7S-R21E**  
**Uintah, County Utah**

Intermediate Interval Drilling Fluid Properties									
Depth Interval (TVD)	Mud Weight (ppg)	Viscosity (sec/qt)	Plastic Viscosity (cp)	Yield Point (lb/100ft <sup>2</sup> )	pH	API Fluid Loss (ml/30min)	Hardness Mg/l)	Low Gravity Solids	KCL %
500'-5,500'	8.5-8.6	27-28	NA	NA	10.0-10.5	NA	100+	< 1.0	2.0-3.0
5,500'-6,800'	9.0-9.5	38-45	10-15	8-12	10.0-10.5	8-10	100+	3-6	3.0+

- Drill out mixing KCL for 3%. Pump pre-hydrated NewGel sweeps for additional hole cleaning and as hole conditions dictate. Add LCM to the sweeps for seepage.
- Mud up at 5,500 ft + to a KCL/Polymer system with properties as outlined above.
- If seepage is encountered, pump LCM sweeps as needed.
- Before drilling into the Wasatch, increase the KCL concentration to 3% or better.
- If Trona water is encountered, treat with Lime as needed for a 10.2 pH and 100 mg/l hardness.
- Mud weight at Intermediate T.D. is expected to be in the 9.2-9.4 ppg range.

Challenges:	Strategies:
Bit Balling	Use New Ease 203 (1-2 gal. down the drill pipe on connections) SAPP and Soap Sticks to prevent balling and to increase penetration rates.
Water Flows (Trona)	If water flows become excessive, mud up and increase mud weight as needed for control. Treat carbonate contamination with Lime/ Calcium Chloride as needed.
Lost Circulation	For seepage pump 50 bbl sweeps with 5-10 ppb DynaFiber and 10-20 ppb NewCarb as needed. For partial or total losses pump sweeps with 10-15 ppb FiberSeal and Cedar Fiber. If losses are not controlled with sweeps consider 10-15% LCM in active system. If losses are severe the use of a DynaPlug Squeeze is strongly recommended.
Differential Sticking	Maintain mud weight as low as possible. Control Low Gravity Solids below 6%, and control fluid loss at 8-10 mls/30 min.
Increase ROP with PDC Bits	Pump 20-40 bbl. Sweeps with NewEase 203, New100N, DynaDet, and SAPP. (FlexDrill Sweeps)
Hole Instability/Sloughing Shale	Consider additions of Asphalt at 4-6 ppb and/or Potassium Silicate at 1-2 ppb.



**Newpark Drilling Fluids, LP**

410 17th Street, Suite 460  
 Denver, CO. 80202  
 (303) 623-2205 FAX (720) 904-7970

# Intermediate Interval

## 11" Hole (500'- 6,800')

Questar  
Exploration & Production  
TU 3-35-7-21  
Sec 35-T7S-R21E  
Uintah, County Utah

---

---

### Offset Data:

Some wells in this area have experienced losses in the Green River and Wasatch formations. LCM sweeps are strongly recommended for this reason. Mud weights should be kept as low as practical but increases to 9.5 ppg may be required to control the Trona Water flows which can be encountered from 3,000-4,000'.

### Fluid Recommendations:

- Drill out cement, float collar and new formation. Test the integrity of the casing seat and squeeze if necessary.
- Close in pits and begin additions of **KCL**, building to 3% . Maintain 3% **KCL** throughout the interval.
- If a Trona Water flow is encountered additions of **Lime** and/or **Calcium Chloride** should be used to adjust alkalinities as needed. An increase of mud weight to 9.5 may be necessary to control water flows in this area.
- The use of a premix tank is highly recommended. Pre-Hydrate **NewGel** for use as sweeps and for viscosity when a mud up is started at +/- 5,500'. Fill premix tank with fresh water. Treat out hardness with **SodaAsh** as needed. Add 0.25-0.5 ppb **Caustic Soda** for a 10.0-10.5 pH. Begin additions of 20-25 ppb **NewGel** allow sufficient circulating time for maximum hydration. Add 1.0-2.0 ppb **CFL II**. Then mix additional **NewGel** (30-40 ppb total) or a 120+ funnel viscosity. The pre-hydrated bentonite can be pumped from the premix to the pill tank and pumped downhole for sweeps or can be added slowly to the 3% **KCL** water for viscosity and rheology control.
- At 5,500'-6,000' (before intermediate T.D.) begin a mud up. Add pre-hydrated **NewGel** from the premix tank to the active system to increase funnel viscosity to 35-40 sec/qt. Maintain viscosity with pre-hydrated **NewGel** as needed. The system should be monitored and additions of **KCL** be adjusted to maintain 3% **KCL**.
- Rheology can be enhanced with additions of .25-1.0 ppb **Flowzan** as needed.
- Reduce Fluid Loss to 8-10CC/30min with additions of 0.5-1.0 ppb **NewPAC** and/or 2-4 ppb **Aqua Bloc** by 5,500'and lower to 6-8 CC/30min prior to TD at 11,900'.
- If penetration rates slow sweeps with **New 100N**, **NewEase 203**, **SAPP**, and **DynaDet** should be considered. (1% **New 100N**, 1% **NewEase 203**, 0.5-0.75 ppb **SAPP**, 0.2 % **DynaDet**). "Flex Sweeps"
- If an increase in mud weight is necessary seepage and/or lost circulation may become a problem. For seepage pump 20-30 bbl pills containing a combination of **NewCarb** and **DynaFiber** mixed at a 2:1 ratio.
- If losses become severe, LCM sweeps of **Cedar Fiber** and **FiberSeal** should be considered and incorporated into the system as needed. If losses continue, increase coarse LCM in active system to 15-20%. If losses continue the use of a **DynaPlug** Squeeze is strongly recommended.
- At TD increase funnel viscosity for logs and casing operations as hole conditions dictate. Suggest funnel viscosity be increased to 45-50 sec/qt, before logging operations be attempted.



**Newpark Drilling Fluids, LP**

410 17th Street, Suite 460  
Denver, CO. 80202  
(303) 623-2205 FAX (720) 904-7970

# Liner Interval

8 1/2" Hole (6,800' - 13,300')

**Questar**  
**Exploration & Production**  
TU 3-35-7-21  
**Sec 35-T7S-R21E**  
**Uintah, County Utah**

<b>Liner Interval Drilling Fluid Properties</b>								
<b>Depth Interval (TVD)</b>	<b>Mud Weight (ppg)</b>	<b>Viscosity (sec/qt)</b>	<b>Plastic Viscosity (cp)</b>	<b>Yield Point (lb/100ft<sup>2</sup>)</b>	<b>pH</b>	<b>API Fluid Loss (ml/30min)</b>	<b>Hardness Mg/l)</b>	<b>Low Gravity Solids</b>
6,800'-13,300'	13.5-14.0	40-50	18-25	10-15	10.0-10.5	6-8	100+	3-6

- After drilling out continue additions of KCL until drilling into the Mesa Verde at 9,967' +/- . After drilling into the Mesa Verde , allow the system to revert to a fresh water polymer system.
- As mud weight is increased, seepage losses can become severe. Treat with LCM pills as needed. If pill treatments will not contain the losses at reasonable levels, by-pass the shakers, retaining the pills and allowing the LCM concentration to increase as needed.
- Hole instability can occur in the Mesa Verde in this area. If encountered, consider adding Asphalt, building to a 4-6 ppb concentration.
- High pressure may be encountered in the Castlegate/Blackhawk. Monitor closely for increased pressure while drilling and use caution on trips to minimize possible swabbing.
- Mud weight at Liner Interval T.D. is expected to be in the 12.0-12.5 ppg range.

<b>Challenges:</b>	<b>Strategies:</b>
Hole Instability/Sloughing Shale	Consider 4-6 ppb Asphalt
Increase in Formation pressure	Monitor well conditions and increase density as needed with <b>NewBar</b> as needed.
Seepage/Lost Circulation	As mud weight is increased (10.0ppg +) seepage and losses may become a problem. For seepage pump 50 bbl sweeps with 5-10 ppb <b>DynaFiber</b> and 10-20 ppb <b>NewCarb</b> as needed. For partial or total losses pump sweeps with 10-15 ppb <b>FiberSeal</b> and <b>Cedar Fiber</b> . Severity of losses will determine size and quantity of LCM added. If losses are not controlled with sweeps consider 10-15% LCM in active system. For severe losses the use of a <b>DynaPlug</b> squeeze should be considered.
Differential Sticking	Maintain mud weight as low as possible. Control Low Gravity Solids below 6%, and control fluid loss at 8-10 mls/30 min.
Increase ROP with PDC Bits	Pump 20-40 bbl. Sweeps with <b>NewEase 203</b> , <b>New100N</b> , <b>DynaDet</b> , and <b>SAPP</b> . (FlexDrill Sweeps)



**Newpark Drilling Fluids, LP**

410 17th Street, Suite 460  
 Denver, CO. 80202  
 (303) 623-2205 FAX (720) 904-7970

# Liner Interval

8 1/2" Hole (6,800'-13,300')

Questar  
Exploration & Production  
TU 3-35-7-21  
Sec 35-T7S-R21E  
Uintah, County Utah

---

---

## Offset Data:

Wells in this area have experienced losses as mud weights are increased to control formation pressure. LCM sweeps are strongly recommended for this reason. Mud weights should be kept as low as practical but increases to 12.5 ppg may be required by Liner TD at 13,300'.

## Fluid Recommendations:

- Drill out cement, float collar and new formation with the system from the previous interval. Test the integrity of the casing seat and squeeze if necessary.
- Continue additions of **KCL** until drilling into the Mesa Verde at 9,967'+/- . Allow **KCL** to naturally dissipate by dilution with fresh water. Begin additions of 0.5-1.0 ppb **NewPHPA** and maintain throughout the interval.
- Maintain viscosity with **PreHydrated NewGel** until chlorides have dropped below 5000-7000 mg/l. After chlorides have dropped **NewGel** will not need to be pre-hydrated and can be added directly to the system.
- Begin additions of **NewPHPA**. Concentration of **NewPHPA** should be maintained at 0.5-1.0 ppb throughout the interval. As mud weight increases additions of **PHPA** should be switched from **NewPHPA DLMW** to the shorter chain **NewPHPA DSL**.
- If hole conditions dictate, consider 4-6 ppb Asphalt.
- If penetration rates slow sweeps with **New 100N**, **NewEase 203**, **SAPP**, and **DynaDet** should be considered. (1% **New 100N**, 1% **NewEase 203**, 0.5-0.75 ppb **SAPP**, 0.2 % **DynaDet**). "**Flex Sweeps**"
- Increase mud weight as needed to control formation pressures as needed. Mud weights should be maintained as low as practical to reduce chance of losses and differential sticking. Increase mud weight as needed with **NewBar**.
- As density increases additions of **NewEdge** and/or **DrillThin** should be added for rheology control.
- As bottom hole temperatures increase and additional fluid loss control is desired supplement the **NewPAC** with **DynaPlex** for fluid loss control. Lower API filtrate to 6-8 cc's with additions of **NewPAC** and **DynaPlex**.
- As mud weight is increased seepage and/or lost circulation may become a problem. For seepage pump 20-30 bbl pills containing a combination of **NewCarb** and **DynaFiber** mixed at a 2:1 ratio. If partial or total returns are encountered, LCM sweeps with a varied size distribution including **Cedar Fiber** and **Fiber Seal**, **PhenoSeal** and other assorted sizes should be considered and incorporated into the system as needed. 20-25% LCM in the active system may be required. The type, size and quantity of LCM used will depend on the severity of losses. If losses are severe a **DynaPlug** squeeze should be considered.
- At TD increase funnel viscosity for logs and casing operations as hole conditions dictate. Suggest funnel viscosity be increased to 50-55 sec/qt, before logging or casing operations be attempted.
- While circulating casing it is recommended to reduce Yield Points for cementing operations.



**Newpark Drilling Fluids, LP**

410 17th Street, Suite 460  
Denver, CO. 80202  
(303) 623-2205 FAX (720) 904-7970

# Production Interval

## 6 1/8" Hole (13,300'-17,150')

**Questar**  
**Exploration & Production**  
TU 3-35-7-21  
**Sec 35-T7S-R21E**  
**Uintah, County Utah**

### Production Interval Drilling Fluid Properties

Depth Interval (TVD)	Mud Weight (ppg)	Plastic Viscosity (cp)	Yield Point (lb/100ft <sup>2</sup> )	O/W Ratio %	HTHP Fluid Loss (ml/30min)	Excess Lime (PPB)	Electrical Stability (MV)	Low Gravity Solids	CaCl Mg/l Water
13,300'-17,150'	15.0-15.5	25-35	8-10	85:15	12-15	2-4	500+	< 6	300K

#### Drilling Fluid Recommendations: (13,300'-17,150')

- Displace to a OptiDrill OBM after finishing the liner job at 13,300'.
- After displacement, maintain the OptiDrill system within the parameters outlined above.
- Offsets in the area have encountered high rates of seepage in this interval. If indications of seepage are observed, sweeps of **NewCarb C**, **Dynafiber C & M**, **NewSeal**, and **CyberSeal** are recommended. Mixing ratios are recommended to be at 5:1 **NewCarb M** to **DynaFiber**, **NewSeal**, and **CyberSeal**. If losses continue to be a problem, consider trying different sizes and combinations until seepage is slowed.
- Maintain rheology low to reduce ECD values and reduce surge and swab during connections and trips.
- Drill as underbalanced as possible to help prevent losses and increase penetration rates.
- For pressure control, spot high weight pills with an equivalent mud weight to drilling ECD's. On trips in, stage these pills out and divert to storage for further use. High weight pills in excess of the drilling ECD should be avoided due to possible lost circulation.

Challenges	Strategies
Displacement	<ul style="list-style-type: none"> <li>• Have 1200-1300 bbls of OBM volume on location along with a pump capable of keeping up with displacement rates.</li> <li>• Pump a 10-20 bbl viscosified OBM spacer ahead of the OptiDrill (enough for 500 ft + separation)</li> <li>• A steady pump rate for either turbulent or plug flow should be used. Reciprocate and rotate to assist in minimizing channeling.</li> <li>• Do not shut down once displacement commences.</li> <li>• Should any contamination occur, isolate the contaminated fluid for reconditioning.</li> </ul>
Seepage/lost Circulation.	Pump LCM sweeps when seepage and/or losses are indicated. Sweeps should be a mixture of , NewCarb, DynaFiber, NewSeal, and CyberSeal. If lost returns are encountered, consider a Di-aseal M or cross linked polymer squeeze.
Maintaining Oil wet solids	For every 1.0 ppg mud weight increase, mix 0.02 gal/bbl OptiWet
Pressure control	<ul style="list-style-type: none"> <li>• Spot weighted pills calculated to give a bottom hole pressure equal to drilling ECD.</li> <li>• Do not exceed drilling bottom hole pressure with the ECD pill. Lost circulation has been a problem on offset wells.</li> <li>• Stage weighted pills out of the hole and recover for future use.</li> </ul>



**Newpark Drilling Fluids, LP**

410 17th Street, Suite 480  
 Denver, CO. 80202  
 (303) 623-2205 FAX (720) 904-7970

# Production Interval

## 6 1/8" Hole (13,300'-17,150')

Questar  
Exploration & Production  
TU 3-35-7-21  
Sec 35-T7S-R21E  
Uintah, County Utah

---

---

### Maintenance Procedure:

**HPHT** - Maintain HPHT values within programmed parameters. Additions of **OptiMul** and **OptiPlus**, at recommended concentrations should maintain the HTHP at recommended levels. If hole conditions indicate a need for lower HPHT values, **Opti G** at 2-4 ppb is recommended.

**Electrical Stability**— Electrical stability should be used as a guide not as an absolute in determining maintenance requirements. Actual values are not critical but should be observed for trends or changes. Decreases in electrical stability should be noted along with other mud properties to determine treatments. To increase electrical stability add emulsifiers and wetting agents **OptiMul** and **OptiPlus** or decrease water content.

**Oil/Water Ratio** - Maintain the oil/water ratio in the 90:10-80:20 range depending on mud weight and condition.. Higher water content will decrease the amount of **OptiVis** needed for rheology.

**Mud weight** - Maintain minimum fluid densities with solids equipment. Monitor hole conditions and all drilling parameters closely for indications of increases in formation pressures and adjust fluid densities accordingly. Drilling with a minimum amount of overbalance will reduce the possibility of losing returns and/or of differentially sticking the drill string. Mud weight on offset wells was in the 15.0-15.5 ppg range at T.D.

**Rheology** - Maintain solids as low as possible. Increase rheology as needed for hole cleaning with a combination of **OptiVis (Bentone 910)** and **Opti Vis RM or Opti Vis PS** and water content.

**Lime** - Maintain the excess Lime at 2-3 ppb excess.

**Hole cleaning** - Calculate rheology requirements based on ROP, pump rates and hole conditions. Adjust as needed .

**Mud losses downhole**—Monitor ECD's with Hy-Calc, maintaining the lowest values possible. If losses are encountered; sweeps containing **NewCarb**, **DynaFiber**, **Opti-G**, and **NewSeal** should be circulated to aid in the prevention of losses. If seepage losses continue and/or become severe, consider spotting a pill with **Magma Fiber (Fine & Regular)** and the above formulation. Keep the hole full at all times, and avoid excessive swabbing and/or surge actions when tripping.

**Solids Control** - Maintain low gravity solids at 4-6 % by volume. The high performance shakers should be equipped with the finest mesh screens that will handle the circulating volume and not cut barite out.

**Water Contamination**— Keep all water sources off the mud pits. If contamination occurs, treat with emulsifiers and Calcium Chloride as needed.



**Newpark Drilling Fluids, LP**

410 17th Street, Suite 460  
Denver, CO. 80202  
(303) 623-2205 FAX (720) 904-7970

# Production Interval

6 1/8" Hole (13,300'-17,150')

Questar  
Exploration & Production  
TU 3-35-7-21  
Sec 35-T7S-R21E  
Uintah, County Utah

**Recommended materials for relaxed filtrate OptiDrill system :  
( 85:15 Oil/Water Ratio)**

Product	Function	Concentration
<b>NewBar</b>	Weighting material	As needed
<b>OptiVis</b>	Organophilic Clay / Viscosifier	2-4 ppb
<b>OptiMul</b>	Primary Emulsifier	2.0 ppb
<b>OptiPlus</b>	Secondary Emulsifier	4.0 gal/bbl.
<b>OptiVis RM</b>	Low End Rheology Modifier	0.1-0.2 ppb
<b>Calcium Chloride Water</b>	Internal Phase	10.0%-20.0 % by volume
<b>Calcium Chloride</b>	Salinity/Activity	300,000 - 350,000 mg/l
<b>OptiG</b>	Fluid Loss control Additive	1.0-4.0 ppb
<b>Lime</b>	Alkalinity Additive	5 ppb
<b>NewCarb M</b>	Loss Circulation Material	10.0 ppb
<b>NewCarb F</b>	Loss Circulation Material	As required
<b>DynaFiber</b>	Loss Circulation Material	As required



**Newpark Drilling Fluids, LP**

410 17th Street, Suite 460  
Denver, CO. 80202  
(303) 623-2205 FAX (720) 904-7970



**OILFIELD WASTE MANAGEMENT PROPOSAL**

For

**Questar Market Resources**

**SOLI-BOND® Processing and Disposal of Drilling Waste**

**Batch Treatment**

**Wells: TU 3-35-7-21**

**NENW Section 35**

**T7S – R21E**

**Uintah County, Utah**

**Prepared For: Jon Gent**  
**Region Drilling Manager**  
**Questar Market Resources**  
**1050 17<sup>th</sup> Street, Suite 500**  
**Denver, Colorado 80265**  
**(303) 672-6927**

**Prepared By: Robert J. Wilson**  
**Technical Sales Representative**  
**Soli-Bond, Inc.**  
**(303) 579-9800**

**CONFIDENTIALITY NOTICE:**

Unless otherwise indicated or obvious from the Proposal, the information contained in this Proposal is privileged and confidential, intended for the use of the individual or entity named above. Dissemination, distribution or copying of this document is strictly prohibited.



SOLI-BOND® Processing and Disposal of Drilling Waste  
**BATCH TREATMENT**  
QUESTAR • TU 3-35-7-21  
Uintah County, Utah

**OVERVIEW**

Soli-Bond, Inc. (SBI) proposes to utilize the SOLI-BOND® Process for the treatment of **Drilling Waste** on the TU 3-35-7-21 in Uintah County, Utah, which will be followed by onsite disposal of the processed material.

This proposal will serve to delineate the specifications and criteria for achieving the project objectives as required by **Questar Market Resources** (Client) and the appropriate regulatory entities.

**GENERAL DESCRIPTION OF THE SOLI-BOND® PROCESS**

The SOLI-BOND® Process involves the controlled addition of a non-toxic, chemically reactive, portland-cement-based reagent or reagents to a waste, followed by the mixing of the reagent with the waste to form homogeneous slurry similar to viscous mortar. Oily substances that may be present in the waste are broken up into small droplets or particles and dispersed throughout the reagent/waste mixture during the mixing phase of the process. After the mixing phase, an irreversible chemical reaction begins to occur between the reagent and water present (or added) in the waste, ultimately causing the reagent/waste mixture to be transformed into a solid granular material with a “soil-like” consistency, typically within 48 hours after processing. Any dispersed particles of oily substances within the processed material are *physically* locked in place or “micro-encapsulated” in their isolated state inside the reacted cementitious matrix, preventing them from re-coalescing and suddenly being released to the environment at significant rates. The same irreversible reaction *chemically* stabilizes various metals that may be present in the waste, primarily by transforming them into less soluble metal hydroxides and other chemical species, thus greatly reducing their mobility and availability to the surrounding environment as well. In summary The SOLI-BOND® Process reduces the leaching rate of target constituents of concern from a waste form to such a degree that they can no longer cause harm to health or the environment. The SOLI-BOND® Process is a waste treatment method more generally known as Solidification/Stabilization (S/S). S/S has been recognized and prescribed by the United States Environmental Protection Agency for many years as an effective technology for the treatment of waste containing various metals as well as non-volatile and semi-volatile organic substances.

**INNOCUOUS WASTE APPLICATIONS**

The SOLI-BOND® Process can also be applied to solidify innocuous oilfield wastes such as spent water based drilling fluids and physically unstable water based drill cuttings to avoid the increased difficulties typically associated with the disposal of liquid or semi-solid wastes. Irreversibly transforming the *physical* properties of an innocuous waste, from a liquid or semi-solid state that’s structurally unstable, into a solid, granular material with load bearing capability, can be the sole reason for using The SOLI-BOND® Process. In addition, the chemically driven transformation into a dry solid occurs quickly, with minimal volume addition and the process can accommodate waste with high fluid content. For oilfield waste pit applications, the process provides more rapid solidification of the pit contents, more room for the prescribed depth of soil cover and can greatly reduce the waiting period for the pit contents to dry sufficiently for pit closure as opposed to that required for conventional closure methods.

SOLI-BOND® Processing and Disposal of Drilling Waste  
BATCH TREATMENT  
QUESTAR • TU 3-35-7-21  
Uintah County, Utah

**SITE AND APPLICATION DESCRIPTION**

The subject work site is an area constructed for the drilling and production of the gas well covered in this proposal. The well plan contemplates the use of an oilbase drilling fluid during the drilling of the production section of the well. As this section of the well is drilled, cuttings will be generated, transported to the surface within the drilling fluid, then mechanically separated from the drilling fluid as waste. These separated cuttings are expected to contain elevated levels of adhered/absorbed hydrocarbons due to their prior contact with the oilbase drilling fluid. These "oilbase cuttings" will be collected in steel catch tanks provided by the Client as drilling progresses and then placed in the separate oil base cuttings pit.

In addition to the "oilbase cuttings" described above, oily waste fluids and sediments may be generated at the work site during drilling operations and after drilling is completed the drilling fluid containment system will be cleaned thus generating some oily cleaning waste as well. It is these oilbase cuttings, waste fluids and sediments and cleaning waste that comprise all the waste to be treated and disposed of under this proposal.

Based on Client information and allowing for well bore washout, decompression/expansion of the drilled cuttings and the adhered/absorbed drilling fluids ("WEF"), the total volume of waste to treat was estimated as follows:

**TU 3-35-7-21**

<b>3,850 feet of 6.125 inch diameter hole x WEF factor of 3:</b>	<b>421</b>
<b>Estimated additional sediments and cleaning waste:</b>	<b><u>10,500</u></b>
<b>Total Estimated Barrels of Waste to Treat:</b>	<b>10,921</b>

SBI proposes to apply the SOLI-BOND® Process to the oilbase cuttings and other indicated waste from the well during drilling operations to achieve the following objectives:

- Permanently reduce the leaching rate of target constituents of concern from the treated material to within prescribed limits.
- Irreversibly solidify the physically unstable waste to allow onsite disposal and support of soil cover without subsidence.
- Accomplish treatment with minimal volume addition to minimize disposal cell size and facilitate required minimum space for soil cover.
- Achieve rapid solidification of the waste to allow prompt final disposal.

**PRELIMINARY ACTIVITIES**

SBI personnel collected a sample of waste similar in characteristics to the waste to be generated on the subject project. The waste sample was used to conduct bench scale SOLI-BOND® processing, which has been carried out to determine effective reagent formulations, reagent/waste mix ratios, pricing and other aspects of this proposal.

**OPERATIONAL PLAN**

SBI jobsite operations will be conducted as follows:

SOLI-BOND® Processing and Disposal of Drilling Waste  
**BATCH TREATMENT**  
QUESTAR • TU 3-35-7-21  
Uintah County, Utah

- After drilling the oilbase section of the well, SBI will install the SOLI-BOND® Waste Processing System at the well site. The “oilbase cuttings” will be treated “in-situ” in the existing lined pit.
- SBI will mobilize personnel to the jobsite to process the waste that has accumulated in the lined oil base cuttings pit.
- Upon arrival at the jobsite, the SBI Site Foreman will conduct a Jobsite Safety Assessment with SBI crew, discussing all potential jobsite safety hazards, required personal safety gear and accident avoidance and conduct safety meetings with SBI crew prior to each day’s work throughout the project.
- SBI and Client Representative will verify the volume of waste to treat in each batch prior to process operations.
- SBI crew will then process the waste with the SOLI-BOND® Waste Processing System.
- Waste processing will be preformed during eight (8) hour daylight shifts. After daily onsite process operations are completed SBI personnel will prepare a SBI field ticket for Client Representative signature, indicating the volume of waste processed (in barrels).
- Components of The SOLI-BOND® Waste Processing System may remain at the jobsite until all waste to treat has been processed.
- After all waste is processed from the well, a composite sample of the processed material will be collected for laboratory analysis to verify that it complies with criteria under the section herein entitled “Performance Criteria.”
- SBI will utilize the existing lined pit as an on-site disposal cell sized to accommodate the processed oilbase cuttings and four (4) feet of soil cover after final reclamation of the drill site. Client has provided a plastic liner for the disposal cell, including installation. After achievement of performance criteria is verified, SBI will backfill the cell to the adjacent surface elevation thus constituting final disposal of the processed material. SBI will then demobilize equipment and personnel thus concluding SBI’s onsite operations.
- A SBI Waste Treatment and Disposal Report suitable for submittal to the appropriate regulatory agencies will then be prepared documenting all pertinent aspects of the project and will be submitted to the Client.

**PERFORMANCE CRITERIA**

The treated waste will comply with the following criteria:

1. Leachable Oil and Grease less than 10 mg/L.
2. Leachable Total Dissolved Solids to be less than 5000 mg/L and/or leachable salts below acceptable site-specific guidelines.

Compliance with the performance criteria will be certified by an accredited testing laboratory utilizing the appropriate tests as prescribed and will be documented in a final report submitted to Client and the appropriate regulatory agencies as required.

**SCHEDULE** (All time/days are estimates and may change due to jobsite conditions)

SOLI-BOND® Processing and Disposal of Drilling Waste  
**BATCH TREATMENT**  
QUESTAR • TU 3-35-7-21  
Uintah County, Utah

<b>ITEM / SERVICE</b> (Based on estimated 10,921 total barrels of waste to process)	<b>ESTIMATED DAYS</b>
Mobilization And Setup	1
Estimated SOLI-BOND® PWD Waste Processing System Rental Days	15
Process Material, Backfill Cell	12
Takedown and Demobilization	1

**ITEMS FURNISHED with SOLI-BOND® PWD Waste Processing System**

**Equipment**

- SB-2-7 Processor
- SOLI-BOND® Reagent Storage Silo w/ Discharge Auger
- Back Hoe Loader
- Ancillary Equipment
- First Aid and Safety Equipment
- SBI Crew Transportation

**Personnel**

- *SBI Site Foreman*
- *SBI Operator Material*
- Fuel necessary to operate Soli-Bond's motorized equipment.

**Miscellaneous**

- SBI Equipment Cleaning.
- One Laboratory Analysis of Processed Material. (for parameters indicated herein)
- SBI Waste Treatment and Disposal Report.

**CLIENT RESPONSIBILITY**

- Client will provide SBI with a written work order or other Client recognized document to contract SBI to perform the work as described herein.
- Client will provide SBI with a list of any Client requirements related to performing and being compensated for the work described herein.
- Client will provide "all weather" ingress and egress to the site.
- Client will provide process add-mix water.
- Client agrees that delays or interruptions in SBI's work described herein caused by "Acts of Nature" or events under the responsibility of the Client or Client contractors (excluding SBI and it's contractors) may result in additional charges to Client.

# QUESTAR EXPLR. & PROD.

**TU #3-35-7-21**

LOCATED IN UINTAH COUNTY, UTAH  
SECTION 35, T7S, R21E, S.L.B.&M.



PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE

CAMERA ANGLE: SOUTHEASTERLY



PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

CAMERA ANGLE: EASTERLY



- Since 1964 -

**UELS**

Uintah Engineering & Land Surveying

85 South 200 East Vernal, Utah 84078  
435-789-1017 uels@uelsinc.com

**LOCATION PHOTOS**

**11 03 06**  
MONTH DAY YEAR

**PHOTO**

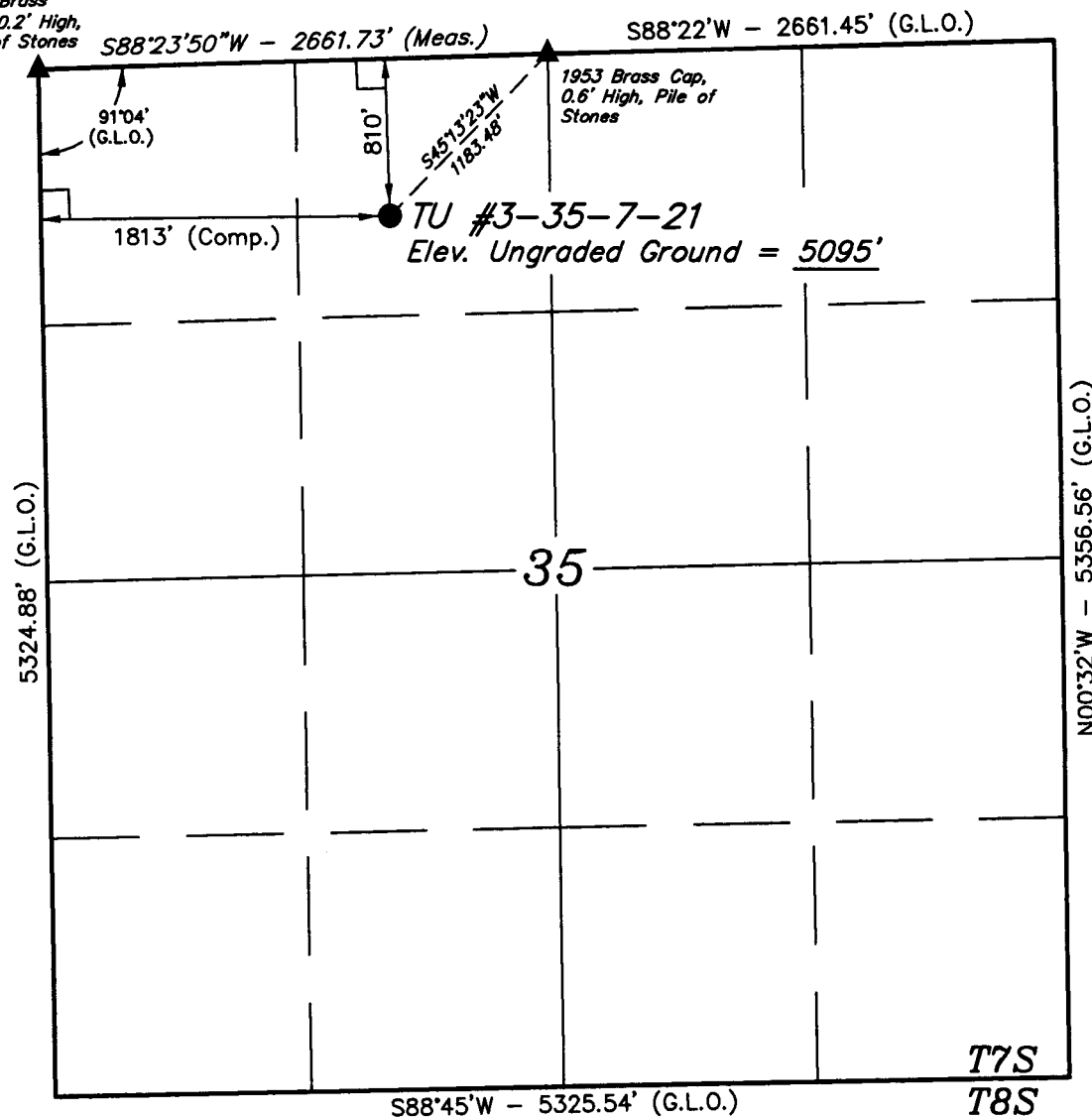
TAKEN BY: D.A.

DRAWN BY: L.K.

REVISED: 08-20-07C.P.

*T7S, R21E, S.L.B.&M.*

1953 Brass  
Cap, 0.2' High,  
Pile of Stones



### BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.

(NAD 83)  
LATITUDE = 40°10'21.40" (40.172611)  
LONGITUDE = 109°31'31.78" (109.525494)  
(NAD 27)  
LATITUDE = 40°10'21.53" (40.172647)  
LONGITUDE = 109°31'29.30" (109.524806)

### LEGEND:

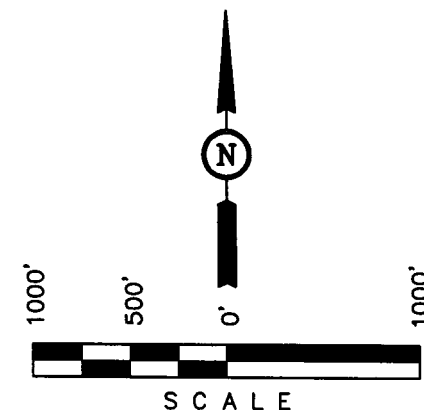
- └─┘ = 90° SYMBOL
- = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.

### QUESTAR EXPLR. & PROD.

Well location, TU #3-35-7-21, located as shown in the NE 1/4 NW 1/4 of Section 35, T7S, R21E, S.L.B.&M. Uintah County, Utah.

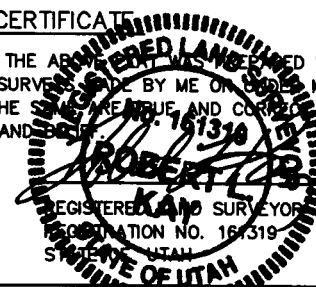
### BASIS OF ELEVATION

BENCH MARK (20EAM) LOCATED IN THE SE 1/4 OF SECTION 35, T8S, R21E, S.L.B.&M. TAKEN FROM THE OURAY SE QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE SERIES (TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 4697 FEET.



### CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEY AND BY ME ON 08-21-07, MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



REVISED: 08-21-07 L.K.

**UINTAH ENGINEERING & LAND SURVEYING**  
85 SOUTH 200 EAST - VERNAL, UTAH 84078  
(435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 10-31-06	DATE DRAWN: 11-7-06
PARTY D.A. A.A. K.G.	REFERENCES G.L.O. PLAT	
WEATHER COOL	FILE QUESTAR EXPLR. & PROD.	



# QUESTAR EXPLR. & PROD.

## LOCATION LAYOUT FOR

TU #3-35-7-21  
SECTION 35, T7S, R21E, S.L.B.&M.  
810' FNL 1813' FWL

FIGURE #1

CONSTRUCT  
DIVERSION  
DITCH

Prevailing

Winds

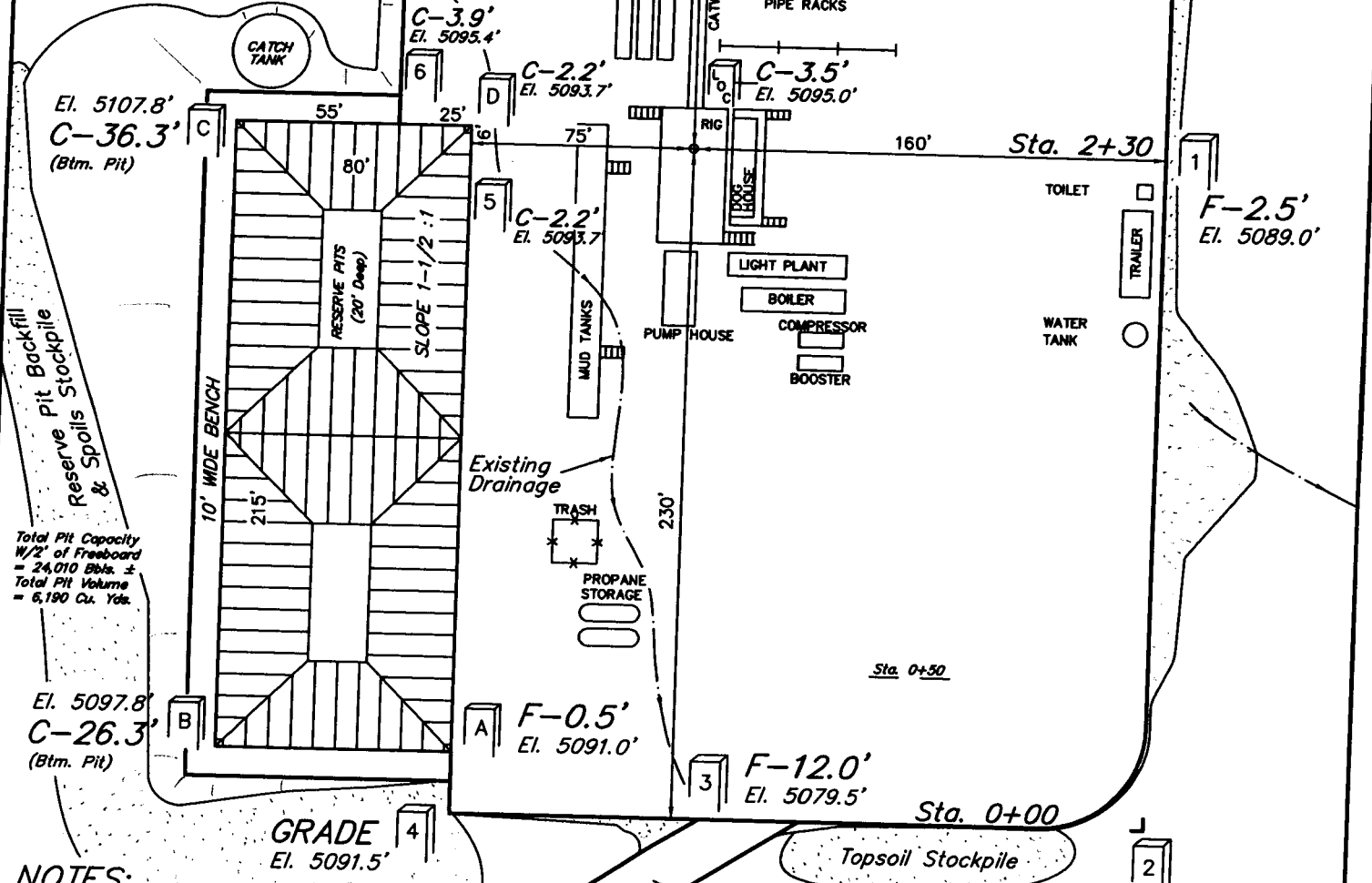
Approx.  
Top of  
Cut Slope

SCALE: 1" = 60'  
DATE: 11-7-06  
Drawn By: K.G.  
REVISED: 08-21-07 L.K.

NOTE:  
Flare Pit is to be located  
a min. of 100' from the  
Well Head.



Approx.  
Toe of  
Fill Slope



### NOTES:

Elev. Ungraded Ground At Loc. Stake = 5095.0'  
FINISHED GRADE ELEV. AT LOC. STAKE = 5091.5'

UINTAH ENGINEERING & LAND SURVEYING  
85 So. 200 East \* Vernal, Utah 84078 \* (435) 789-1017

# QUESTAR EXPLR. & PROD.

## TYPICAL CROSS SECTIONS FOR

TU #3-35-7-21

SECTION 35, T7S, R21E, S.L.B.&M.

810' FNL 1813' FWL

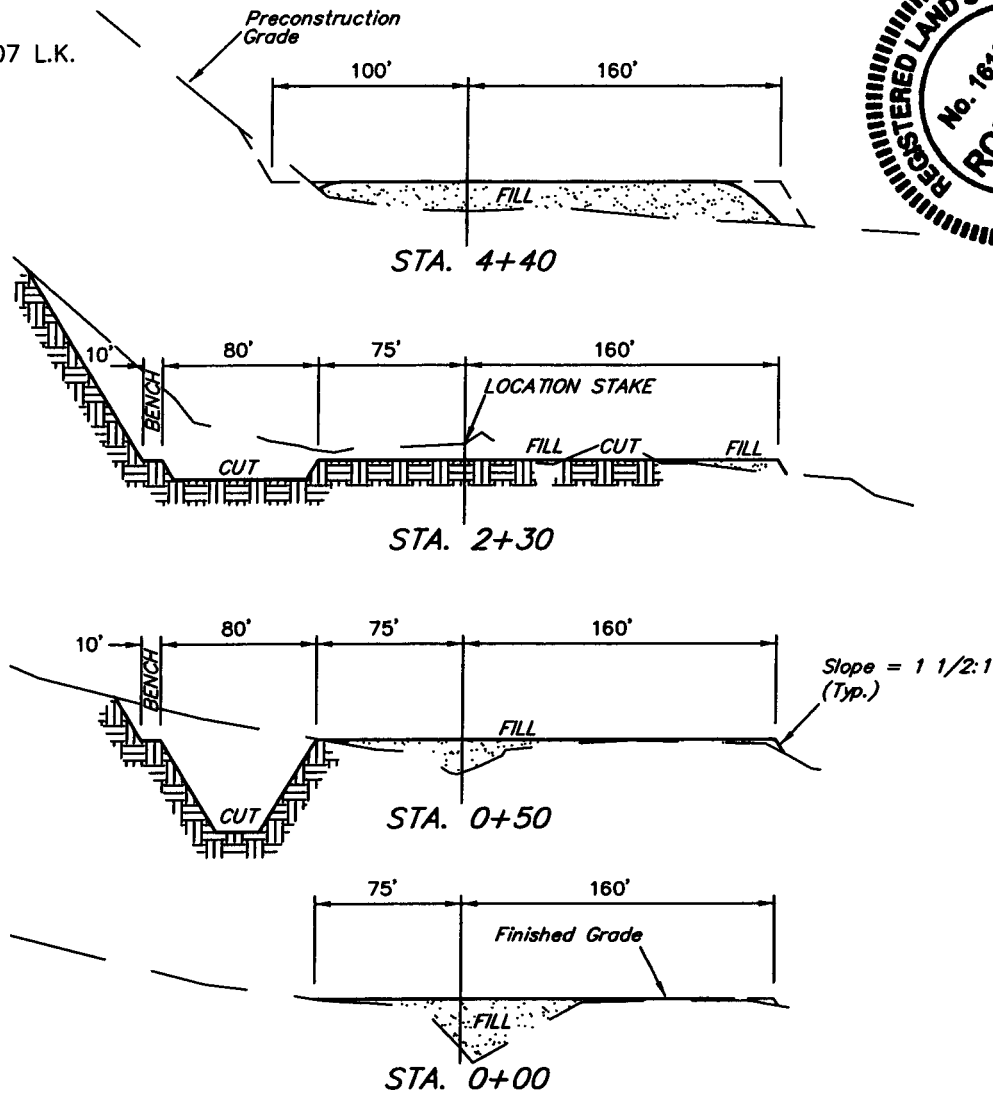
FIGURE #2

1" = 20'  
X-Section  
Scale  
1" = 50'

DATE: 11-7-06

Drawn By: K.G.

REVISED: 08-21-07 L.K.



### APPROXIMATE ACREAGES

WELL SITE DISTURBANCE =  $\pm$  3.490 ACRES

ACCESS ROAD DISTURBANCE =  $\pm$  0.909 ACRES

PIPELINE DISTURBANCE =  $\pm$  0.492 ACRES

TOTAL =  $\pm$  4.891 ACRES

### NOTE:

Topsoil should not be Stripped Below Finished Grade on Substructure Area.

### \* NOTE:

FILL QUANTITY INCLUDES 5% FOR COMPACTION

### APPROXIMATE YARDAGES

#### CUT

(6") Topsoil Stripping = 2,960 Cu. Yds.

Remaining Location = 21,340 Cu. Yds.

TOTAL CUT = 24,300 CU.YDS.

FILL = 11,580 CU.YDS.

EXCESS MATERIAL = 12,720 Cu. Yds.

Topsoil & Pit Backfill = 6,060 Cu. Yds.  
(1/2 Pit Vol.)

EXCESS UNBALANCE = 6,660 Cu. Yds.  
(After Interim Rehabilitation)

UINTAH ENGINEERING & LAND SURVEYING

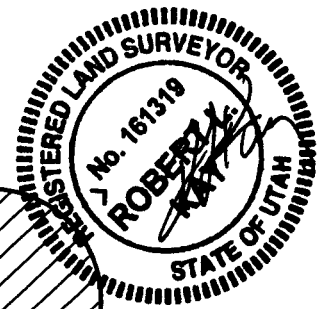
85 So. 200 East \* Vernal, Utah 84078 \* (435) 789-1017



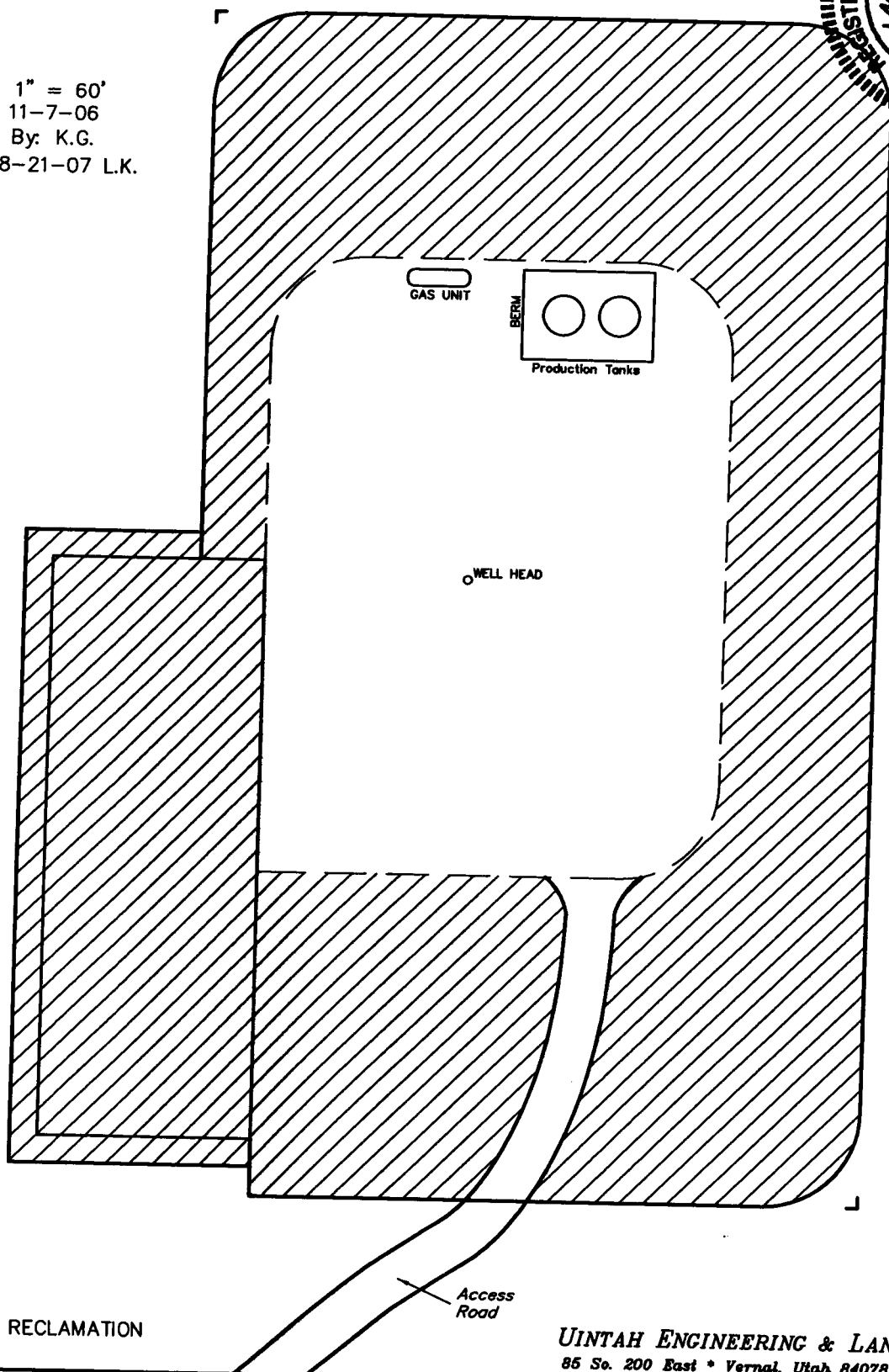
**QUESTAR EXPLR. & PROD.**  
**INTERIM RECLAMATION PLAN FOR**

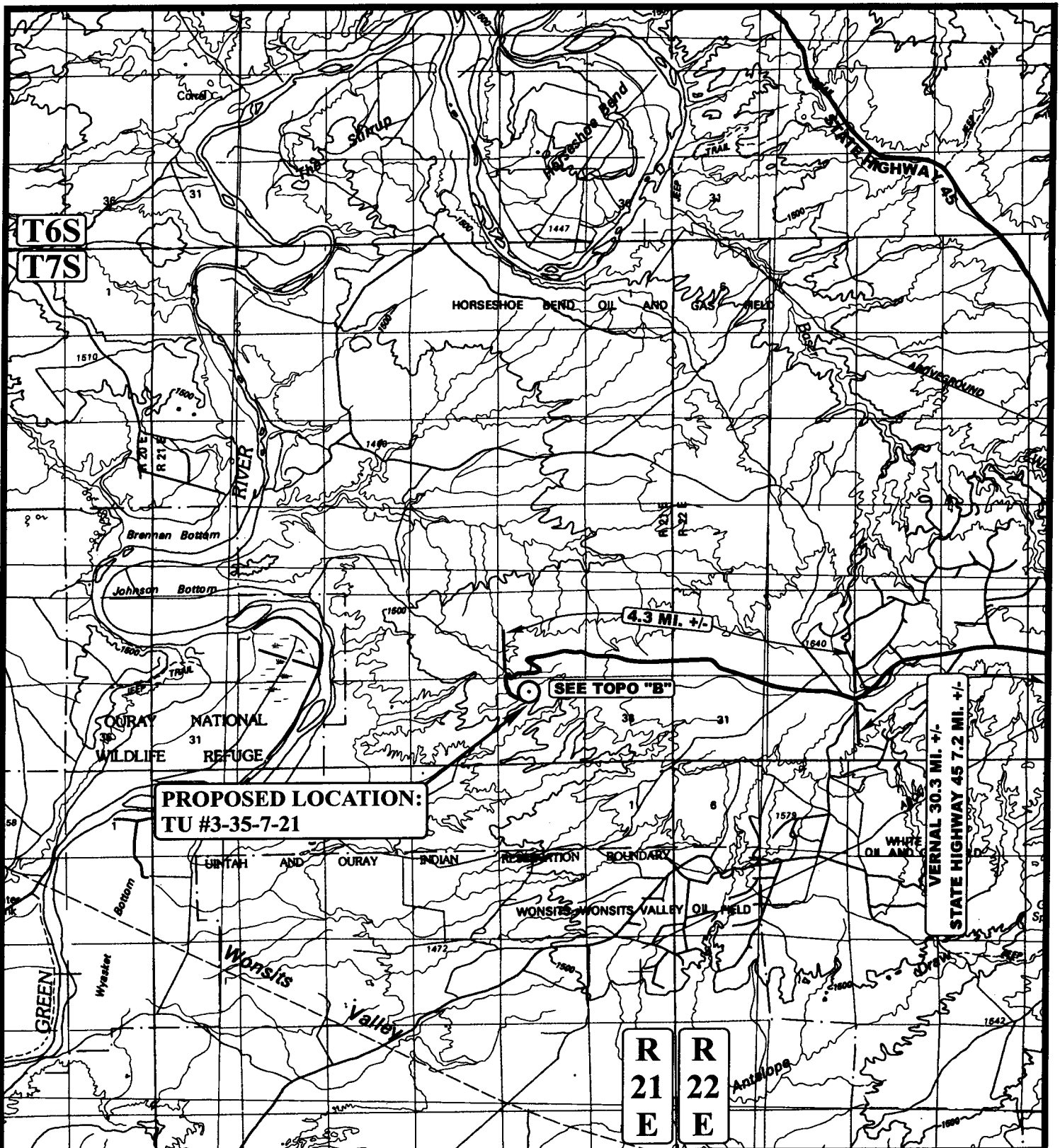
**FIGURE #3**

TU #3-35-7-21  
SECTION 35, T7S, R21E, S.L.B.&M.  
810' FNL 1813' FWL



SCALE: 1" = 60'  
DATE: 11-7-06  
Drawn By: K.G.  
REVISED: 08-21-07 L.K.





# LEGEND:

○ PROPOSED LOCATION

# QUESTAR EXPLR. & PROD.

TU #3-35-7-21

SECTION 35, T7S, R21E, S.L.B.&M.

810' FNL 1813' FWL



**Uintah Engineering & Land Surveying**  
 85 South 200 East Vernal, Utah 84078  
 (435) 789-1017 \* FAX (435) 789-1813



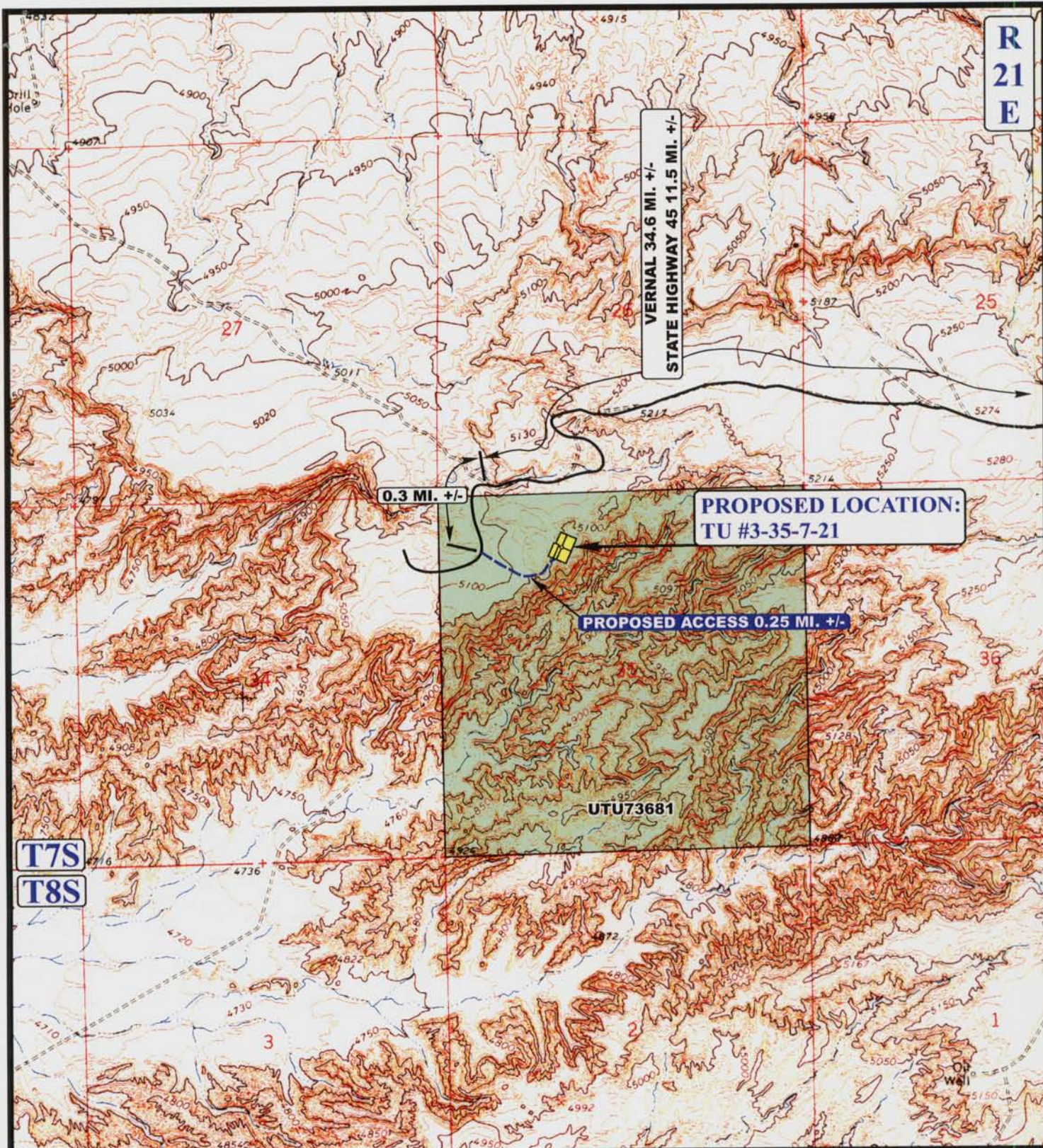
TOPOGRAPHIC  
 MAP

11 03 06  
 MONTH DAY YEAR

SCALE: 1:100,000 DRAWN BY: L.K. REVISED: 08-20-07C.P.







# LEGEND:

PROPOSED ACCESS ROAD  
 EXISTING ROAD

## QUESTAR EXPLR. & PROD.

TU #3-35-7-21  
 SECTION 35, T7S, R21E, S.L.B.&M.  
 810' FNL 1813' FWL



Uintah Engineering & Land Surveying  
 85 South 200 East Vernal, Utah 84078  
 (435) 789-1017 \* FAX (435) 789-1813



**TOPOGRAPHIC**  
**MAP**

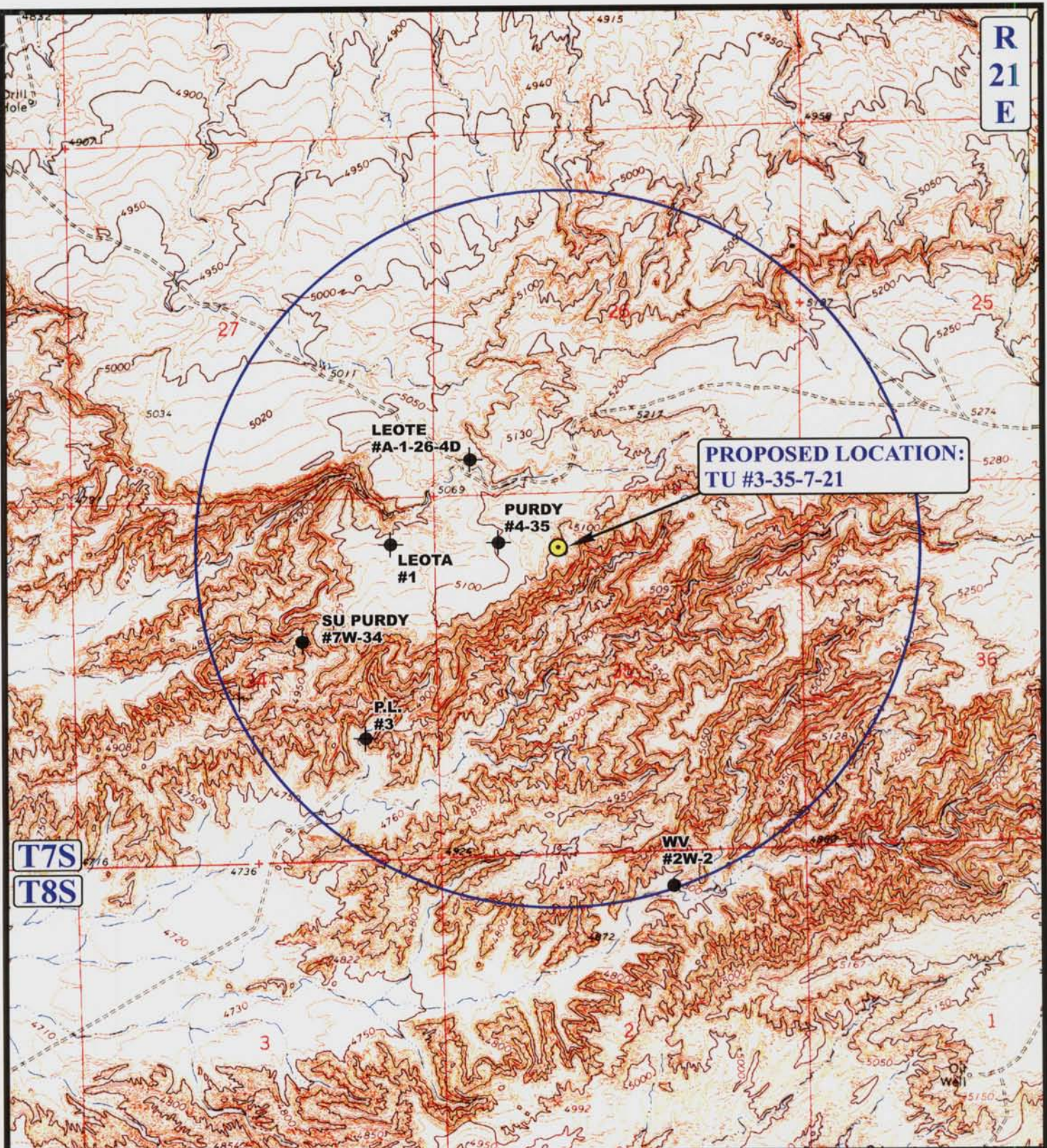
**11 03 06**  
 MONTH DAY YEAR

SCALE: 1" = 2000' DRAWN BY: L.K. REVISED: 08-20-07C.P.

**B**  
 TOPO



**R  
21  
E**



**T7S  
T8S**

**LEGEND:**

- |                   |                         |
|-------------------|-------------------------|
| ⊗ DISPOSAL WELLS  | ⊗ WATER WELLS           |
| ● PRODUCING WELLS | ● ABANDONED WELLS       |
| ● SHUT IN WELLS   | ● TEMPORARILY ABANDONED |

**QUESTAR EXPLR. & PROD.**

**TU #3-35-7-21**  
**SECTION 35, T7S, R21E, S.L.B.&M.**  
**810' FNL 1813' FWL**



**Uintah Engineering & Land Surveying**  
 85 South 200 East Vernal, Utah 84078  
 (435) 789-1017 \* FAX (435) 789-1813



**TOPOGRAPHIC  
MAP**

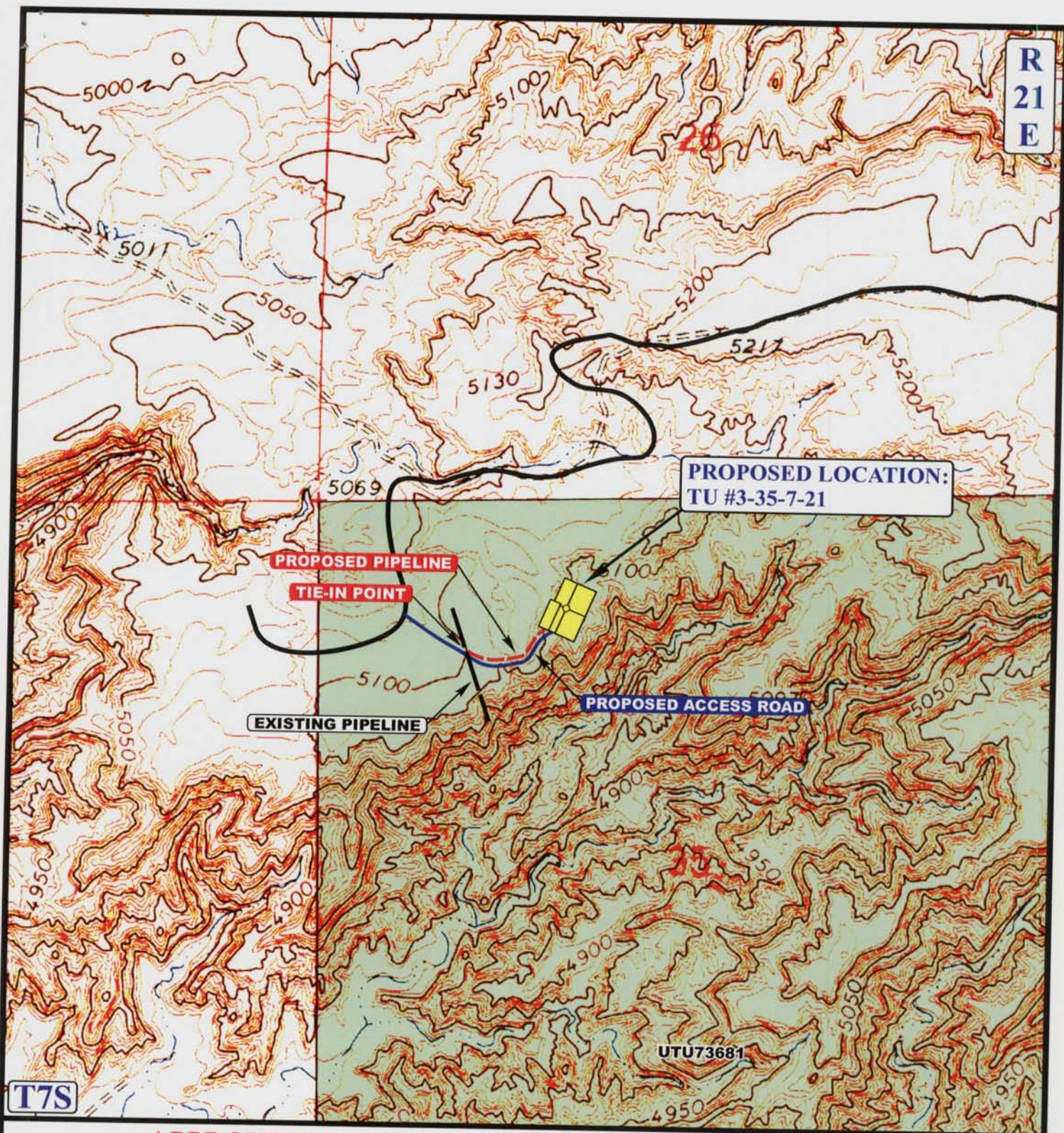
**11 03 06**  
 MONTH DAY YEAR

SCALE: 1" = 2000' DRAWN BY: L.K. REVISED: 08-20-07C.P.





R  
21  
E



APPROXIMATE TOTAL PIPELINE DISTANCE = 714' +/-

**LEGEND:**

- PROPOSED ACCESS ROAD
- - - EXISTING PIPELINE
- - - PROPOSED PIPELINE
- - - PROPOSED PIPELINE (SERVICING OTHER WELLS)



**QUESTAR EXPLR. & PROD.**  
TU #3-35-7-21  
SECTION 35, T7S, R21E, S.L.B.&M.  
810' FNL 1813' FWL



**Uintah Engineering & Land Surveying**  
85 South 200 East Vernal, Utah 84078  
(435) 789-1017 \* FAX (435) 789-1813

**TOPOGRAPHIC  
MAP**

**11 03 06**  
MONTH DAY YEAR

SCALE: 1" = 1000' DRAWN BY: L.K. REVISED: 08-20-07C.P.

**D  
TOPO**



CONFIDENTIAL

## DIVISION OF OIL, GAS AND MINING

### SPUDDING INFORMATION

Name of Company: QUESTAR EXPL & PROD COMPANY

Well Name: TU 3-35-7-21

Api No: 43-047-38995 Lease Type: FEDERAL

Section 25 Township 08S Range 22E County UINTAH

Drilling Contractor PETE MARTIN DRLG RIG # RATHOLE

### SPUDDED:

Date 11/06/07

Time 7:00 PM

How DRY

**Drilling will Commence:** \_\_\_\_\_

Reported by RAY PALLESEN

Telephone # (435) 880-7967

Date 11/07/07 Signed CHD

(June 1990)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**CONFIDENTIAL**

**SUNDRY NOTICES AND REPORTS OF WELLS**

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir  
Use "APPLICATION FOR PERMIT--" for such proposals

FORM APPROVED

Budget Bureau No. 1004-0135

Expires: March 31, 1993

5. Lease Designation and Serial No.

UTU-73681

6. If Indian, Allottee or Tribe Name

N/A

7. If Unit or CA, Agreement Designation

STIRRUP UNIT

8. Well Name and No.

TU 3-35-7-21

9. API Well No.

38995  
43-047-37231

10. Field and Pool, or Exploratory Area

UNDESIGNATED

11. County or Parish, State

UINTAH

**SUBMIT IN TRIPLICATE**

1. Type of Well

Oil

Gas

☐

Well

☒

Well

☐

Other

2. Name of Operator

QUESTAR EXPLORATION &amp; PRODUCTION CO.

3. Address and Telephone No.

11002 E. 17500 S. - Vernal, UT 84078

Contact: Dahn.Caldwell@questar.com

435-781-4342 Fax 435-781-4357

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

1409<sup>+</sup> FNL, 1378<sup>+</sup> FEL, SWNE, SEC 35-T7S-R21E

810 Fnl 1813 Fwl

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

☐

Notice of Intent

☒

Subsequent Report

☐

Final Abandonment Notice

TYPE OF ACTION

☐

Abandonment

☐

Recompletion

☐

Plugging Back

☐

Casing Repair

☐

Altering Casing

☒

Other SPUD

☐

Change of Plans

☐

New Construction

☐

Non-Routine Fracturing

☐

Water Shut-Off

☐

Conversion to Injection

☐

Dispose Water

(Note) Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work)

On 11/6/07 - Drilled 80' of 26" conductor hole. Set 80' of 20" conductor pipe. Cmtd w/ Ready Mix.

3 - BLM, 2- Utah OG&amp;M, 1 - Denver, 1 - file Word file-server

RECEIVED

NOV 09 2007

DIV. OF OIL, GAS &amp; MINING

14. I hereby certify that the foregoing is true and correct.

Signed

Dahn F. Caldwell

Office Administrator II

Date

11/6/07

(This space for Federal or State office use)

Approved by:

Title

Date

Conditions of approval, if any

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**CONFIDENTIAL**

ENTITY ACTION FORM - FORM 6

OPERATOR: Questar Exploration & Production Co.

ADDRESS: 11002 E. 17500 S.

Vernal, Utah 84078-8526

OPERATOR ACCT. No. N-5085

(435)781-4342

Action Code	Current Entity No.	New Entity No.	API Number	Well Name	QQ	SC	TP	RG	County	Spud Date	Effective Date
A	99999	16512	43-047-38995	TU 3-35-7-21	NENW	35	7S	21E	Uintah	11/6/07	11/26/2007

WELL 1 COMMENTS: MNCS

CONFIDENTIAL

WELL 2 COMMENTS:

WELL 3 COMMENTS:

WELL 4 COMMENTS:

WELL 5 COMMENTS:

ACTION CODES (See instructions on back of form)

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (explain in comments section)

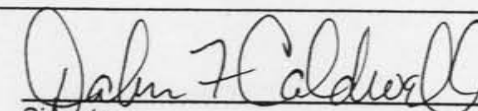
NOTE: Use COMMENT section to explain why each Action Code was selected

(3/89)

RECEIVED

NOV 09 2007

DIV. OF OIL, GAS & MINING

  
Signature

Office Administrator II  
Title

11/06/07  
Date

Phone No. (435)781-4342

CONFIDENTIAL

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**SUNDRY NOTICES AND REPORTS ON WELLS**

*Do not use this form for proposals to drill or reenter an abandoned well. Use Form 3160-3 (APD) for such proposals.*

FORM APPROVED  
OMB No. 1004-0135  
Expires July 31, 1996

5. Lease Serial No.

UTU-73681

6. If Indian, Allottee or Tribe Name

N/A

7. If Unit or CA/Agreement, Name and/or No.

TAPADERO UNIT

8. Well Name and No.

TU 3-35-7-21

9. API Well No.

43-047-38995

10. Field and Pool, or Exploratory Area

WONSITS VALLEY

11. County or Parish, State

UINTAH

**SUBMIT IN TRIPLICATE - Other Instructions on reverse side**

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

QUESTAR EXPLORATION & PRODUCTION, CO.

3a. Address

11002 E. 17500 S. VERNAL, UT 84078

3b. Phone No. (include area code)

435-781-4331

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

810' FNL 1813' FWL NENW SECTION 35, T7S, T21E

**12. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

**TYPE OF SUBMISSION**

☒ Notice of Intent

☐ Subsequent Report

☐ Final Abandonment Notice

**TYPE OF ACTION**

☐ Acidize

☐ Alter Casing

☐ Casing Repair

☒ Change Plans

☐ Convert to Injection

☒ Deepen

☐ Fracture Treat

☐ New Construction

☐ Plug and Abandon

☐ Plug Back

☐ Production (Start/Resume)

☐ Reclamation

☐ Recomplete

☐ Temporarily Abandon

☐ Water Disposal

☐ Water Shut-Off

☐ Well Integrity

☐ Other

13. Describe Proposed or Completed Operations (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleation in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

QUESTAR EXPLORATION AND PRODUCTION COMPANY (QEP) REQUESTS PERMISSION TO CHANGE THE DRILLING PLAN THAT WAS APPROVED ON SEPTEMBER 13, 2007. QEP WILL BE DRILLING THIS WELL WITH A MORE EFFICIENT DRILLING RIG THAN ORIGINALLY PLANNED AND, CONSEQUENTLY, IS ABLE TO MAKE THESE IMPROVEMENTS TO THE DRILLING PLAN. THE MAJOR CHANGES ARE AS FOLLOWS:

CHANGE TD FROM 16,700' TO 17,950

ELIMINATE THE 7" LINER AND RUN 7" CASING BACK TO SURFACE

CHANGE THE HOLE SIZE FROM 11" FOR THE 9 5/8" CASING TO 12- 1/4"

CHANGE CASING DEPTH OF THE 9 5/8" TO 6650'

ATTACHED IS A REVISED DRILLING PLAN, WELLBORE DIAGRAM, CEMENT VOLUMES HAVE BEEN ADJUSTED TO ACCOMMODATE THE NEW DEPTHS.

FOR TECHNICAL QUESTIONS, PLEASE CONTACT JIM DAVIDSON, CHIEF DRILLING ENGINEER FOR QEP AT (303) 308-3090.

14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed)

Jan Nelson

Signature

Title

Regulatory Affairs

Date

December 6, 2007

**THIS SPACE FOR FEDERAL OR STATE USE**

Approved by

Title

BRADLEY G. HILL

Date

12-06-07

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

ENVIRONMENTAL MANAGER

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on reverse)

COPY SENT TO OPERATOR

Date: 12-10-2007

Initials: KS

**CONFIDENTIAL**

ONSHORE OIL & GAS ORDER NO. 1  
QUESTAR EXPLORATION & PRODUCTION COMPANY  
TU 3-35-7-21

DRILLING PROGRAM

ONSHORE OIL & GAS ORDER NO. 1  
Approval of Operations on Onshore  
Federal Oil and Gas Leases

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil and Gas No. 1, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished the field representative to insure compliance.

1. **Formation Tops**

The estimated tops of important geologic markers are as follows:

<u>Formation</u>	<u>Depth</u>
Uinta	Surface
Green River	3,277'
Wasatch	6,942'
Mesaverde	9,967'
Sego	12,232'
Castlegate	12,357'
Blackhawk	12,717'
Mancos Shale	13,162'
Mancos B	13,607'
Frontier	16,302'
Dakota Silt	17,287'
Dakota	17,484'
Morrison	17,884'
TD	17,950'

2. **Anticipated Depths of Oil Gas Water and Other Mineral Bearing Zones**

The estimated depths at which the top and bottom of the anticipated water, oil, gas. Or other mineral bearing formations are expected to be encountered are as follows:

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
Gas	Wasatch	6,942'
Gas	Mesaverde	9,967'
Gas	Blackhawk	12,717'
Gas	Mancos Shale	13,162'
Gas	Mancos B	13,607'
Gas	Dakota	17,484'

### DRILLING PROGRAM

All fresh water and prospectively valuable minerals encountered during drilling, will be recorded by depth and adequately protected. All oil and gas shows will be tested to determine commercial potential.

All water shows and water-bearing sands will be reported to the BLM in Vernal, Utah. Copies of State of Utah form OGC-8-X are acceptable. If flows are detected, samples will be submitted to the BLM along with any water analyses conducted. Fresh water will be obtained from Wonsits Valley water right # A36125 (which was filed on May 7, 1964,) or Red Wash water right # 49-2153 (which was filed on March 25, 1960). It was determined by the Fish and Wildlife Service that any water right number filed before 1989 is not depleting to the Upper Colorado River System, to supply fresh water for drilling purposes. All water resulting from drilling operations will be disposed of at Red Wash Central Battery Disposal Site; SWSE, Section 27, T7S, R23E or Wonsits Valley Disposal Site; SWNW, Section 12, T8S, R21E.

3. **Operator's Specification for Pressure Control Equipment:**

- A. 13-5/8" 5000 psi double gate, 5,000 psi annular BOP (schematic included) from surface hole to 7" casing point.
- B. 13-5/8" 10,000 psi double gate, 10,000 psi single gate, 10,000 psi annular BOP (schematic included) from 7" casing point to total depth.
- C. Functional test daily
- D. All casing strings shall be pressure tested (0.2 psi/foot or 1500 psi, whichever is greater) prior to drilling the plug after cementing; test pressure shall not exceed the internal yield pressure of the casing.
- E. Ram type preventers and associated equipment shall be tested to approved stack working pressure if isolated by test plug or to 50 percent of internal yield pressure of casing whichever is less. BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc..., for a 10M system and individual components shall be operable as designed.

DRILLING PROGRAM

4. **Casing Design:**

Hole Size	Csg. Size	Top (MD)	Bottom (MD)	Wt.	Grade	Thread	Cond.
26"	20"	sfc	40-60'	Steel	Cond.	None	Used
17-1/2"	13-3/8	sfc	500'	54.5	K-55	STC	New
12-1/4"	9-5/8"	sfc	6,650'	47	HCP-110	SLIJ II**	New
8-1/2"	7"	0'	9,000'	26	HCP-110	LTC	New
8-1/2"	7"	9000'	13,300'	29* SDrift	HCP-110	LTC	New
6-1/8"	4-1/2"	sfc	13,000'	15.1	P-110	LTC	New
6-1/8"	4-1/2"	13,000	15,000'	15.1	Q-125	LTC	New
6-1/8"	4-1/2"	15,000'	17,950'	17.1	Q-125	LTC	New

Casing Strengths:				Collapse	Burst	Tensile (minimum)
13-3/8"	54.5 lb.	K-55	STC	1,130 psi	2,730 psi	547,000 lb.
9-5/8"	47 lb.	HCP-110	LTC	7,100 psi	9,440 psi	1,213,000 lb.
7"	29 lb.*	HCP-110	LTC	9,200 psi	11,220 psi	797,000 lb.
4-1/2"	15.1 lb.	P-110	LTC	14,350 psi***	14,420 psi	406,000 lb.
4-1/2"	15.1 lb.	Q-125	LTC	15,840 psi***	16,380 psi	438,000 lb.
4-1/2"	17.1 lb.	Q-125	LTC	19,010 psi***	18,130 psi	493,000 lb.

\* Special Drift

\*\* 9.777" OD

**MINIMUM DESIGN FACTORS:**

COLLAPSE: 1.0 – 1.3\*\*\*

BURST: 1.10

TENSION: 1.80



DRILLING PROGRAM

Area Fracture Gradient: 0.9 psi/foot  
Maximum anticipated mud weight: 15.4 ppg  
Maximum surface treating pressure: 12,500 psi

5. **Auxiliary Equipment**

- A. Kelly Cock – yes
- B. Float at the bit – yes
- C. Monitoring equipment on the mud system – visually and/or PVT/Flow Show
- D. Full opening safety valve on the rig floor – yes
- E. Rotating Head – yes  
If drilling with air the following will be used:
- F. The blooie line shall be at least 6" in diameter and extend at least 100' from the well bore into the reserve/blooie pit.
- G. Blooie line ignition shall be provided by a continuous pilot (ignited when drilling below 500').
- H. Compressor shall be tied directly to the blooie line through a manifold.
- I. A mister with a continuous stream of water shall be installed near the end of the blooie lines for dust suppression.

Surface hole will be drilled with air, air/mist, foam, or mud depending on hole conditions. Drilling below surface casing will be with water based drilling fluids consisting primarily of fresh water, bentonite, lignite, caustic, lime, soda ash and polymers. No chromates will be used. Oil base mud will be used to drill the final section of the hole. The water based and oil based drilling system specifics area attached to this APD. Maximum anticipated mud weight is 15.4 ppg.

No minimum quantity of weight material will be required to be kept on location.

PVT/Flow Show will be used from base of surface casing to TD.

Gas detector will be used from surface casing depth to TD.

6. **Testing, logging and coring program**

- A. Cores – none anticipated
- B. DST – none anticipated

DRILLING PROGRAM

- C. Logging – Mud logging – 500' to TD  
GR-SP-Induction, Neutron Density, FMI/Sonic Scanner
- D. Formation and Completion Interval: Mancos interval, final determination of completion will be made by analysis of logs.  
Stimulation – Stimulation will be designed for the particular area of interest as encountered.

7. **Cementing Program**

**20" Conductor:**

Cement to surface with construction cement.

**13-3/8" Surface Casing: sfc – 500' (MD)**

**Slurry:** 0' – 500'. 610 sxs (731 cu ft) Premium cement + 0.25 lbs/sk Flocele + 2% CaCl<sub>2</sub>  
Slurry wt: 15.6 ppg, slurry yield: 1.20 ft<sup>3</sup>/sx, slurry volume: 17-1/2" hole + 100% excess.

**9-5/8" Intermediate Casing: sfc – 6,650' (MD)**

**Lead Slurry:** 0' – 6,150'. 1769 sks (2600 cu. ft.) Foamed Lead 50/50 Poz cement + 0.1 % FDP-C766-05 (Low Fluid Loss Control) + 5 #/sx Silicate Compacted + 20 % SSA-1 + 0.1 % Versaset + 1.5 % Zonesealant 2000 (Foamer) Slurry wt: 14.3 ppg, (unfoamed) Slurry yield: 1.47 ft<sup>3</sup>/sk (unfoamed), Slurry volume: 12-1/4" hole + 35 % excess.

**Tail Slurry:** 6,150' – 6,650'. 156 sks (41 bbls) Tail 50/50 Poz cement + 0.1 % FDP-C766-05 (Low Fluid Loss Control) + 5 #/sx Silicate Compacted + 20 % SSA-1 + 0.1 % Versaset Slurry wt: 14.3 ppg, Slurry yield: 1.47 ft<sup>3</sup>/sk, Slurry volume: 12-1/4" hole + 35% excess.

**7" Intermediate Casing: 6,300 - 13,300' (MD)**

**Foamed Lead Slurry 2:** 6,300' – 13,300. 915 sks (1455 cu ft) 50/50 Poz Premium + 20% SSA-1 + 3 % silicalite compacted + 0.5% Halad 344 + 0.2% Halad 413 + 0.1% HR-12 + 0.7% Super CBL + 0.2% Suspend Slurry wt: 14.0 ppg,, Slurry yield: 1.59 ft<sup>3</sup>/sk, Slurry volume: 8-1/2" hole + 25% excess.

**4-1/2" Production Casing: sfc - 17,950' (MD)**

**Lead/Tail Slurry:** 6,500 - 17,950'. 977 sks (1455 cu ft) Premium Cement + 17.5% SSA-1, + 4% Microbond HT, + 0.2% Halad 344 + 0.5% Halad 413, + 0.3% CFR-3, + 0.9% HR-12, + 0.2% Super CBL, + 0.2% Suspend HT, 17.5% SSA-2. Slurry wt: 16.2 ppg, Slurry yield: 1.49 ft<sup>3</sup>/sk, Slurry volume: 6-1/8" hole + 35% in open hole section.

DRILLING PROGRAM

\*Final cement volumes to be calculated from caliper log with an attempt to be made to circulate cement to the surface on the intermediate string and 6,500' on the production string. A bond log will be run across the zone of interest and across zones as required by the authorized officer to insure protection of natural resources.

8. **Anticipated Abnormal Pressures and Temperatures, Other Potential Hazards**

No abnormal temperatures or pressures are anticipated. No H<sub>2</sub>S has been encountered in or known to exist from previous wells drilled to similar depths in the general area. Maximum anticipated bottom hole pressure equals approximately 13,000 psi. Maximum anticipated bottom hole temperature is 300° F.

9. **ADDITIONAL INFORMATION FOR OIL BASE MUD:**

- A. See attached diagram of well pad layout. A reserve pit will be constructed for this location. This pit will be constructed so that a minimum of two vertical feet of freeboard exists above the top of the pit at all times and at least one-half of the holding capacity will be below ground level. The pit will be lined with a synthetic reinforced liner, 30 millimeters thick, with sufficient bedding used to cover any rocks prior to putting any fluids into the pit. The pad will be designed so that runoff from adjacent slopes does not flow into the reserve pit. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. At the beginning of drilling operations this reserve pit will have an open-ended dike placed in the pit that allows the fluids to migrate from one side of the pit to the other during the drilling of the surface and intermediate hole using water based mud. At the time that operations begin to drill the production hole with oil base mud, this dike will be extended, dividing the pit into two distinct, isolated halves allowing no migration of fluids from one side to the other. At that time all fluids will be removed from the end of the pit to be used as a cuttings pit. This cuttings pit will be used for oil based cuttings generated during drilling of the production hole.
- B. Oil-base mud will be mixed in the closed circulating system and transferred to four 500-bbl tanks on location for storage prior to and after drilling operations. Drip pans will be installed below the rotary beams on the substructure and can be viewed on site from the cellar area. As the production section of the hole is drilled, the cuttings transported to the surface with the drilling fluid will be mechanically separated from the drilling fluid as waste by two shale-shakers and then cleaned/dried via a mud cleaner and/or centrifuge. These separated cuttings will be collected in a steel catch tank once they leave the closed circulating system and transported and placed into the cuttings half of the reserve pit.

DRILLING PROGRAM

- C. Plastic material will underlay the rig, oil base mud/diesel storage tanks and mud pits. All tanks on location will be placed inside of berms. Any oily waste fluids and sediments generated at the work site during drilling operations or when cleaning the fluid containment system after drilling will also be placed into the cuttings half of the pit.
- D. All rig ditches will be lined and directed to a lined sump for fluid recovery. A drip pan will be installed on the BOP stack, a mud bucket will be utilized as needed on connections and a vacuum system will be used on the rig floor for fluid recovery in those areas.
- E. Once all waste has been placed in the cuttings portion of the pit and all necessary approvals obtained, the oilfield waste management consultant Soli-Bond or a similar company will mobilize equipment and personnel to the site to perform the cement based solidification/stabilization process in-situ for encapsulation. Soil will be backfilled over the processed material used on the cuttings side of the pit and that portion of the pit area will be returned to the existing grade bordering the pit. Please see the attached Soli-Bond Proposal for Processing and Disposal of Drilling Waste for specific details. The half of the reserve pit containing water base materials will be left to evaporate and will be closed and reclaimed at the time that portion of the pit is dry.

**QUESTAR / WEXPRO**  
**10M BOP x 10M Annular**  
**Minimum Requirements**

13 5/8" Rotating Head

13 5/8" Spacer Spool

13 5/8" 10M Annular

13 5/8" 10M Double Ram

13 5/8" 10M Mud Cross

2" Kill Line

3" Choke Line

13 5/8" 10M Single Ram

G.L.

Mat Board

13-5/8" 5M x 10M "C" Section

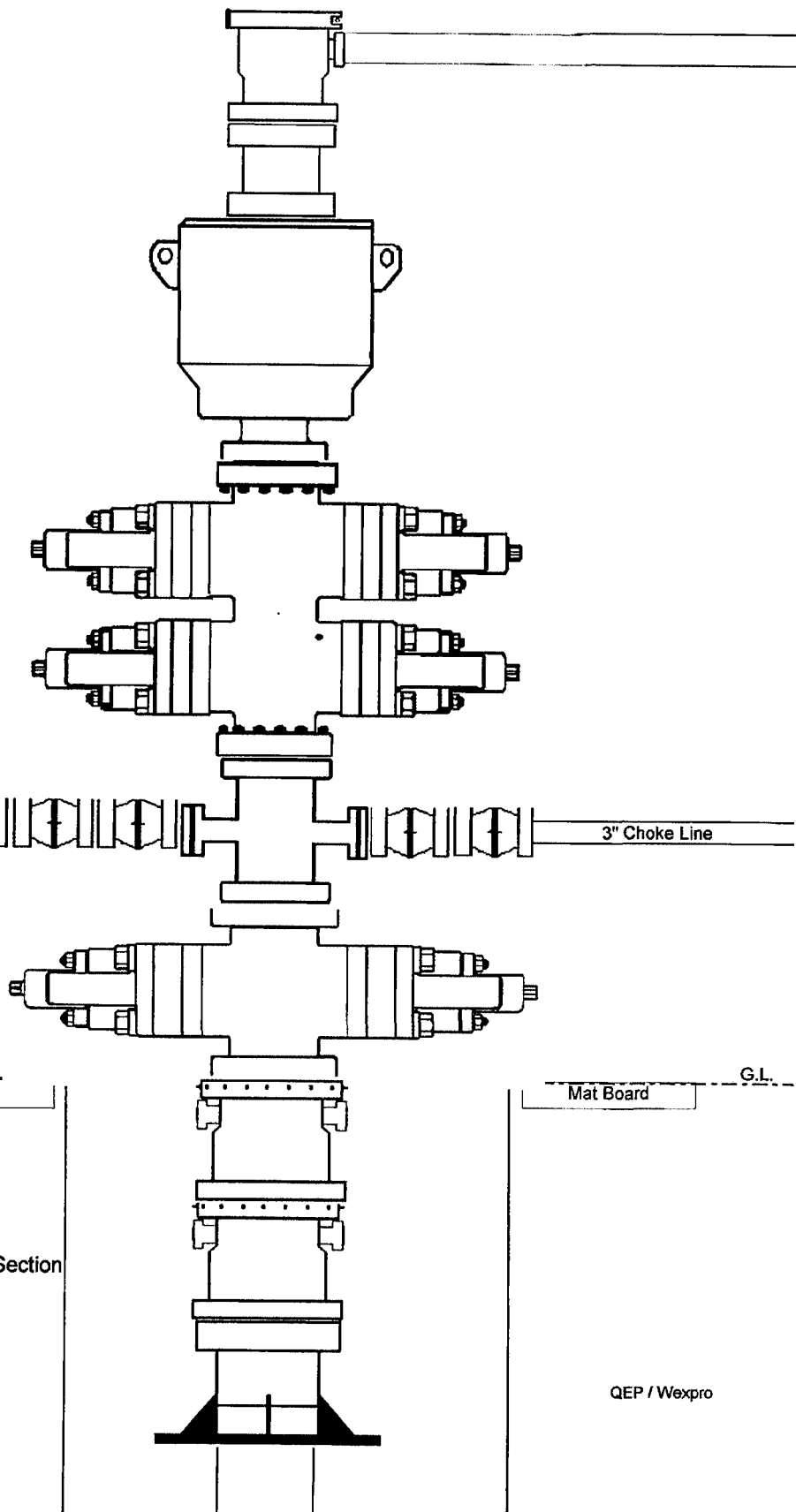
13-5/8" 5M x 5M Multi-Bowl "B" Section

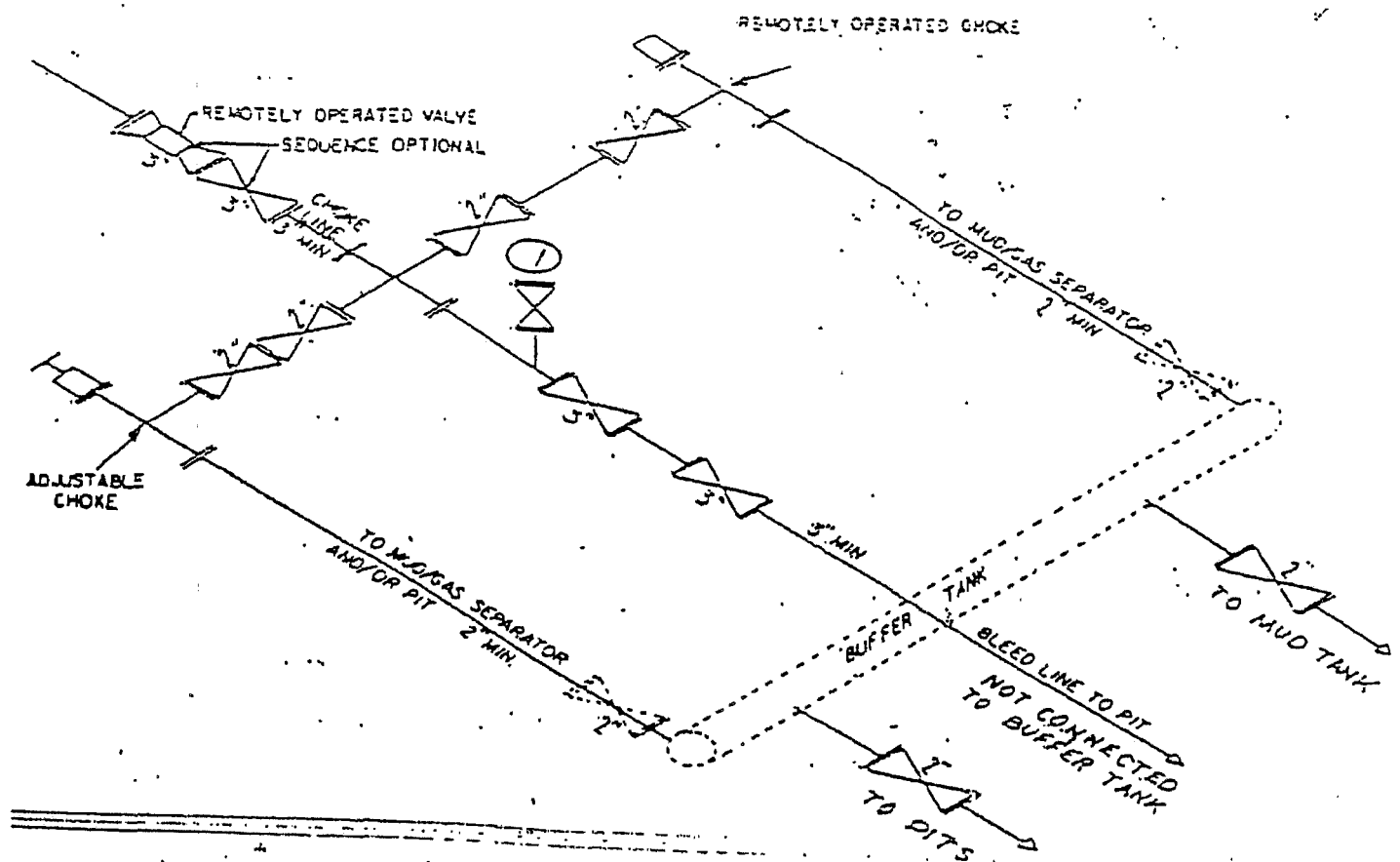
13-5/8" 5M "A" Section

Mat Board

G.L.

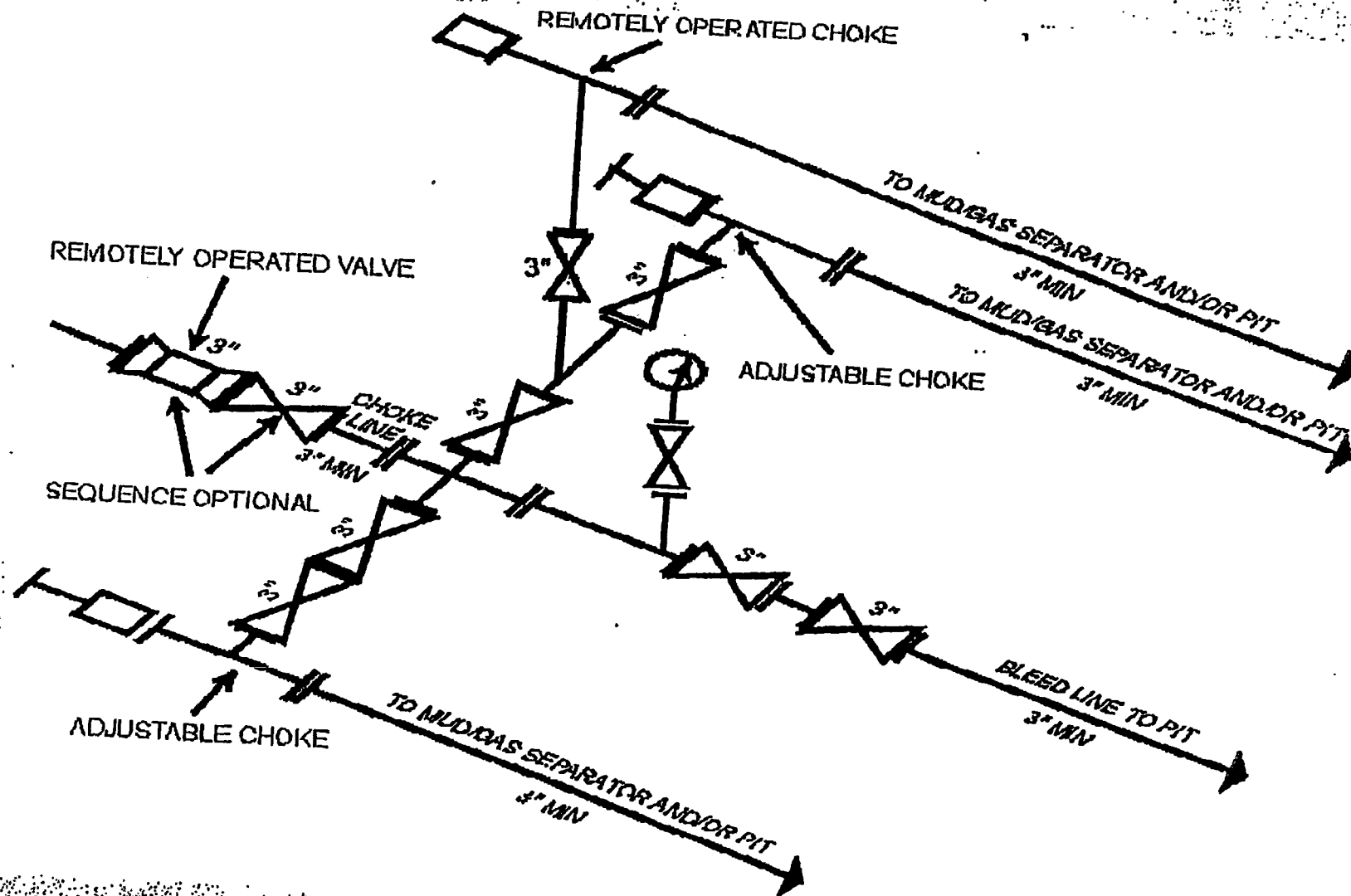
QEP / Wexpro





② 5M CHOKE MANIFOLD EQUIPMENT — CONFIGURATION OF CHOKES MAY VARY

# Attachment I. Diagrams of Choke Manifold Equipment



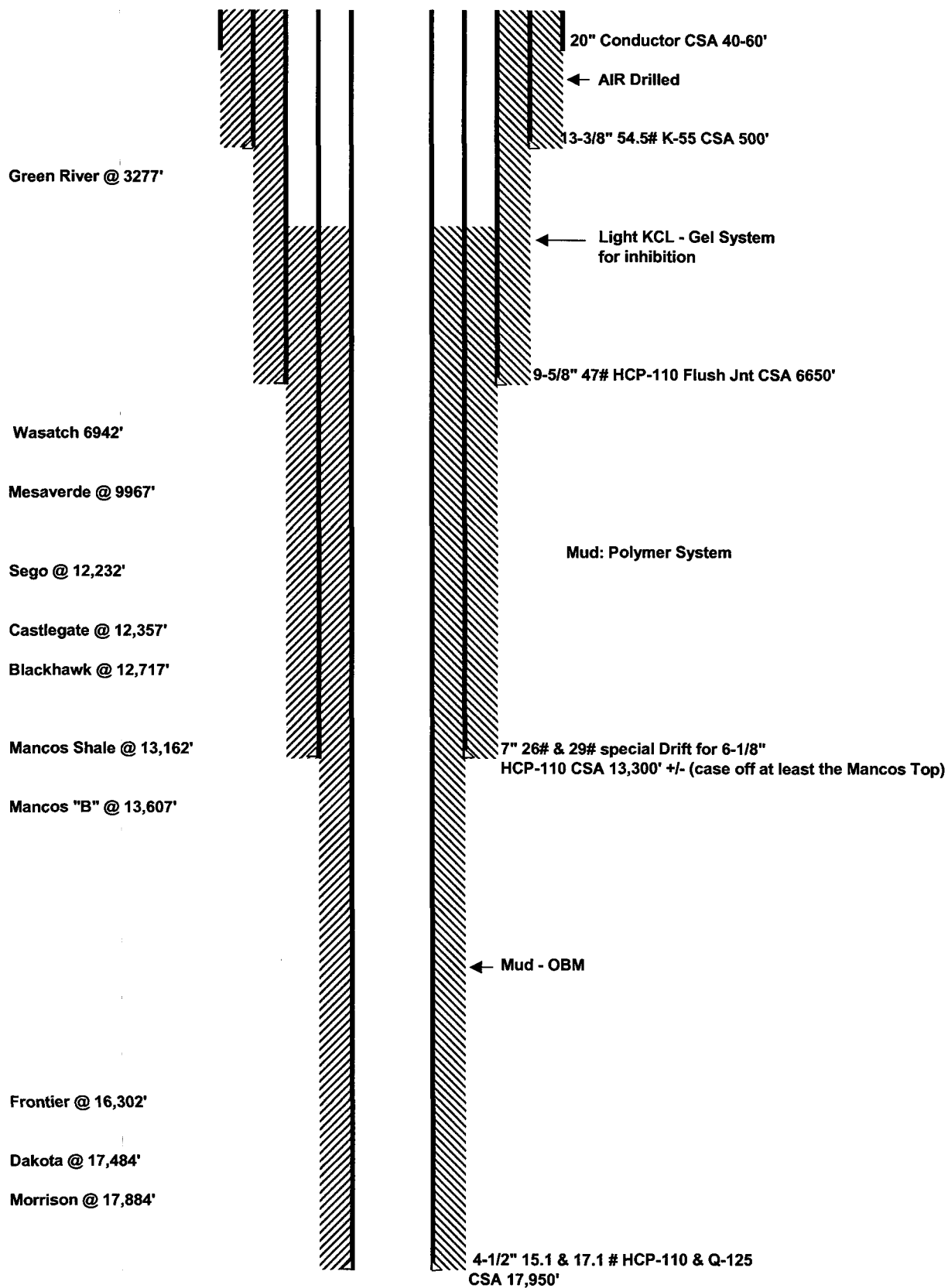
1-4 10M and 15M Choke Manifold Equipment -- Configuration of chokes may vary

[54 FR 39528, Sept. 27, 1989]

Last Updated March 25, 1997 by John Diederich



# **TU 3-35-7-21**



CONFIDENTIAL

43-047-38995

35 7S 2Le

Page 1 of 5

Questar E &amp; P

## Operations Summary Report

Well Name: TU 3-35-7-21  
 Location: 35- 7-S 21-E 26  
 Rig Name: UNIT

Spud Date: 12/5/2007  
 Rig Release:  
 Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
12/5/2007	17:30 - 06:00	12.50	DRL	1	RIG UP & DRILL 17.5 SURFACE HOLE F/ 80'-570'
	06:00 - 09:00	3.00	CSG	6	LAY DOWN DRILL STRING & RUN 13 3/8" CSG
	09:00 - 12:00	3.00	CMT	2	RIG UP & CEMENT CSG WITH 500 SX OF PREMIUM CEMENT, RECOVERED 54 BBLs OF CEMENT TO SURFACE, PLUG PUMPED, FLOATS DID NOT HOLD, SHUT IN WITH 200 # & WOC
12/11/2007	06:00 - 18:00	12.00	LOC	4	PREPAIR DERRICK FOR LAYING DOWN - WORK ON WIND WALLS AND RIGGING DOWN FLOOR - RIG DOWN TOP DRIVE MOTOR PACKAGE - RIG DOWN ACC. FROM SUIT CASE - TRUCKS HAULED ALL OF THE 4" DRILL PIPE AND 4 LOADS OF 5" DP. - ALL TRUCKS ARE CHAINED UP - USING OUR FORKLIFT ON RIG SIDE AND THERES ON OTHER LOCATION
	18:00 - 06:00	12.00	LOC	4	CLEAN SUBS ALL NIGHT - TEAR PUMPS APART FOR RIG MOVE AND CHECK ALL PARTS FOR WASH AND OR CRACKS - SNOWED 5 INCHES ON LOCATION LAST NIGHT - PLAN TO GET 5" HAULED OUT THIS MORNING - WHILE DERRICK IS UP WE WILL HAVE CRANE OVER DOING BUSTER EQUIPMENT AND SOLIDS CONTROL WHILE WE WAIT FOR PIPE TO MOVED
12/12/2007	06:00 - 18:00	12.00	LOC	4	RIG DOWN GENERAL - REBLADE ROAD AND LOCATION AFTER IT SNOWED AGAIN - MOVE AND SET SHACKS - DIG UP POWER CORD TO TRANSFORMER AS LAST 15' FROZE SOLID IN PIPE - FINISH HAULING 5" DP - MOVE TOP DRIVE POWER UNIT AND DIG UP BURIED FLARE LINES AND RE FILL HOLE - REMOVE OIL BASE SAFETY PROTECTION LINERS AND SET ON SIDE OF LOCATION - LOWER DERRICK - SHUT IN BOILER AND BLOW ALL LINES - UNSTRING POER CORDS TO DRAWWORKS - KILL GENERATORS - RIG DOWN BAR HOPPERS - AND HOPPER HOUSE - HAUL AWAY 400 BBL TANKS - MUD VAC SYSTEM - DARK AT 1700
12/13/2007	18:00 - 06:00	12.00	LOC	4	WAIT ON DAY LIGHTS
	06:00 - 18:00	12.00	LOC	4	REBLADE ROAD TO NEW LOCATION - BACK END OF RIG MOVED OUT - SUCTION TANK AND DRAWWORKS SET ON NEW LOCATION FOR REPAIRS - RIG NOW ON FOUR LOCATIONS WITH 50% ON NEW LOCATION - 85% RIGGED DOWN - DERRICK STILL ON FLOOR - LOCATION BOTTOM FELL APART - HAD CRANE AND BOTH BIG BOB-TAIL TRUCKS STUCK MULTIPLE TIMES - WHEN DROVE BACK ON LOCATION AT 1530 CRANE WAS STUCK - 8 HANDS WATCHING UNTIL WE HAD A DONKEY CHEWING MEETING THEN HAD A MEETING WITH TOOL PUSHER WHO WAS KNEE DEEP IN MUD HELPING ON THE OTHER SIDE OF RIG - WE WILL CUT CONDUCTOR AND PREP CASING FOR A SECTION THIS MORNING, WILL NOT WELD UNTIL MATS AND BOTTOM SUBS SET AND CENTERED WHICH HOPEFULLY WILL BE LATE TONIGHT - THAT WAY HE WILL HAVE EQUIPMENT MOVING AROUND HIM.
12/14/2007	18:00 - 06:00	12.00	LOC	4	WAIT ON DAYLIGHTS
	06:00 - 18:00	12.00	LOC	3	TEAR DRAWWORKS APART WITH FAILURE ON BOTH SIDES OF DRUM SHAFT - PREPARE FOR SHIPPING TO OK. TWO HANDS HELPED INSTEAD OF HELPING TO MOVE RIG - DERRICK SET OFF AND HAULED TO OTHER LOCATION - ONE SUB PIECE LIFTED OFF AND LOADED OUT - MUD TANKS TOOK 3 WINCH TRUCKS TO SKID TO STABLE GROUND TO LOAD OUT - HYDRILL PULLED OFF AND SET ON ROAD TRUCK FOR ELEMENT REPLACEMENT IN CASPER - 3 LOADS OF MATS HAULED IN
12/15/2007	18:00 - 06:00	12.00	LOC	3	WAIT ON DAY LIGHTS
	06:00 - 18:00	12.00	LOC	3	SET DOWN AND LOAD OUT SUBS - NIPPLE STACK DOWN AND MOVE OUT - SET NIGHT CAP ON WELLHEAD - SET LINER DOWN AND SET MATS - SET SUBS - SET SHAKER AND MIDDLE TANK - WELDERS AND HANDS SEEM SLOW - DRUM NOT LOADED OUT UNTIL 10:30
12/16/2007	18:00 - 06:00	12.00	LOC	4	WAIT ON DAY LIGHTS
	06:00 - 18:00	12.00	LOC	3	SET IN BOP'S - FINISH SUBS AND SPREADERS - SET GAS BUSTER AND CHOKE LINES - MOVE PIPE AGAIN SO WE CAN GET DERRICK ON SMALL

RECEIVED

JAN 04 2008

Printed: 1/3/2008 8:02:02 AM

DIV. OF OIL, GAS &amp; MINING

## Operations Summary Report

Well Name: TU 3-35-7-21  
 Location: 35- 7-S 21-E 26  
 Rig Name: UNIT

Spud Date: 12/5/2007  
 Rig Release:  
 Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
12/16/2007	06:00 - 18:00	12.00	LOC	3	LOCATION - 70% OF BACK END SET IN - ONE TRENCHER COULDNT DID DONE - GOT ANOTHER ONE AND BROKE CHAIN - 15% TRENCHING DOWN - PUT NEW SALA BLOCK IN DERRICK - PUT DERRICK RUNNERS ON TO PROTECT KELLY HOSE AND TOP DRIVE HOSES
12/17/2007	18:00 - 06:00	12.00	LOC	3	WAIT ON DAYLIGHTS
	06:00 - 18:00	12.00	LOC	4	SET DERRICK ON FLOOR - SET CATWALK AND BEAVER SLIDE - SET UP FLARE BOX - BACK END ALL SET IN - WE HAVE BAR HOPPERS AND STANDS LEFT - START CHANGING OUT HIGH PRESSURE LINES ON FLOW LINE AND VENT LINE - BOTH ARE WASHED OUT - WE ARE PUTTING IN NEW 10" BALL VALVES - WILL TAKE TWO DAYS OF REFRABRICATION TO FINISH, COULD FINISH IT BY MONDAY NIGHT - ONE CREW PULLED CORDS WHILE TRYING TO START RIG MOTOR ALL DAY WITH NO LUCK - TRENCHER REPAIRED AND WILL BE DONE BY MONDAY NOON - TRUCKS ARE GONE AND CRANE DONE BY NOON - SOME ELECTRICAL CORDS NEED REPLACING AS IT LOOKS LIKE THEY WERE CUT - UNIT MECHANICS ARE CHANGING CHAINS ON DRAWWORKS AND OTHER SMALL REPAIRS -
12/18/2007	18:00 - 06:00	12.00	RIG	2	AT THIS TIME I AM SHOWING TROUBLED TIME OR AS A MARKER AS WE SHOULD NOW BE ON UNIT TIME - IT IS MARKED ON IADC
	06:00 - 18:00	12.00	LOC	4	RIGGING UP ON UNIT TIME - DRAWWORKS WILL BE HERE TUESDAY MORNING - CRANE AND MECHANICS ARE LINED UP TO PUT TOGETHER - DID NOT FINISH NEW FLOW LINE AND VENT LINE SYSTEM, WE DID GET PROBLEM AREAS SOLVED AND COULD BE DONE TUESDAY NIGHT. WELDERS INSTALLED DRAWWORKS TIE DOWNS - ALSO WELDER REPAIRED OIL LEAK - SUPPORT LEGS WELDED ON WELL HEAD , WILL POUR CEMENT WHEN STACK IS CENTERED AND TORQUED UP - WILL START DIGGING IN FLARE LINES THIS MORNING - WILL GO TO RIG GEN. TODAY - UNIT WELDERS STILL WORKING ON THE MOVING OF GUN LINES(SHOULD BE DONE TODAY) MY WELDERS HAVE FINISH SUCTION-JUST NEED TO INSTALL BRACKETS FOR EXTRA AGGITATOR AND FINISH MOVING HOPPER SUCTION SO BLADES FIT ON BOTTOM - WILL EMAIL YOU COSTS FOR BACK BILLING UNIT FOR YOUR MEETING
12/19/2007	18:00 - 06:00	12.00	LOC	4	WAIT ON DAYLIGHTS
	06:00 - 18:00	12.00	LOC	4	DRUM SHAFT SHOWED UP AND THEY STARTED PUTTING IT TOGETHER - 70% DONE - RIG UP - UNIT WELDERS WORKING ON GUN LINES ECT - ELECTRICIAN SHOWED AND DID SOME REPAIRS - STARTED DIGGING IN FLARE LINES, GROUND FROZE AND ALL ROCK - HAD TO GET A BACKHOE WITH HAMMER DRILL TO HELP OUT - ROUSTABOUTS ON THE VERY SLOW SIDE - REPAIRS ALSO BEING DOWN ON TOP DRIVE POWER UNIT BY A TESCO HAND -
12/20/2007	18:00 - 06:00	12.00	LOC	4	WAIT ON DAYLIGHTS
	06:00 - 18:00	12.00	LOC	4	FINISHED CHIPPING AWAY ON FLARE LINE DITCH - HOOKED UP ALL FLARE LINES AND HAVE IT 50% COVERED - HOOKED UP RT. HEAD (1 7/8 STUD FELL IN HOLE-WILL RETRIEVE WITH MAGNET AND DRILL PIPE ) - WELDERS FINISHED GUN LINES FOR UNIT - STABILIZER BRACES AND PADS DOWN ON WELLHEAD - STEAM NOW CIRCULATING RIG - FINISHED PUTTING DRAWWORKS TOGETHER AND SET ON FLOOR AT DARK TIME
12/21/2007	18:00 - 06:00	12.00	LOC	4	WAIT ON DAYLIGHTS ON UNIT TIME
	06:00 - 10:00	4.00	LOC	4	SET ELECTRICAL SUITCASE FOR DRAWWORKS - SET DOG HOUSE - KOOMEY HOUSE AND AIR HEATER ON UNIT TIME
	10:00 - 18:00	8.00	LOC	4	RUN DRAWWORKS FULL OPEN FOWARD AND BACKWARDS - NO VIBRATION - HOOK UP EATON BRAKE AND RUN FULL OPEN FOWARD AND REVERSE - NO VIBRATION - UNIT WELDERS FINISHED SAFETY RAILING IN SUBS - MECHANICS WORKING ON TOP DRIVE-SERVICE PUMPS AND CHANGE OUT

## Operations Summary Report

Well Name: TU 3-35-7-21  
 Location: 35- 7-S 21-E 26  
 Rig Name: UNIT

Spud Date: 12/5/2007  
 Rig Release:  
 Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
12/21/2007	10:00 - 18:00	8.00	LOC	4	ORINGS AND DUE 90 DAY CHECK - TESCO WILL CHANGE OUT HYD. COUPLER ON FRIDAY AND DETROIT MECHANIC WILL CHECK OUT TOP END OF MOTOR - PREMIX AND SUCTION TANK FINISHED EXCEPT FOR TURNING AGGITATOR 180 IN SUCTION TANK - WILL TORQUE UP BOP'S IN MORNING - WILL SET PREMIX TANK AND BLUE LINE IN MORNING - DERRICK IS STRUNG UP, FOUND FLAT SPOT 100' FEET INTO DRILL LINE - CUT AND LAYED DOWN, SHOULD RAISE DERRICK TOMORRO AND WILL BREAK TOURS - TRANSFERED 1585 BBLs OIL BASE FROM OLD LOCATION TO UNIT 328 - SOLIBOND MOVING IN EQUIPMENT LATE AFTERNOON
12/22/2007	18:00 - 06:00	12.00	LOC	4	TAKE RIG LOADER AND OPEN ROAD FOR CREWS AND WELDERS ECT. TORQUE UP BOP'S - HELP WELDERS ON BLUEY LINE - RAISE DERRICK - START RIGGING UP FLOOR - MECHANICS FINISHED TOP DRIVE - INSTALL STEEL LINE IN SUITCASE FOR AIR DRILLING - SET PREMIX TANK RIG UP FLOOR - DIG OUT AND START PUTTING TOP DRIVE PIECES TOGETHER
	06:00 - 10:00	4.00	OTH		
	10:00 - 18:00	8.00	LOC	4	
12/23/2007	18:00 - 06:00	12.00	LOC	4	RIG UP FLOOR & START BOLTING TORQUE TUBE TOGETHER, FINISHED RIGGING UP BLOOIE LINE, SET IN AIR PACKAGE INSTALL TORQUE TUBE IN DERRICK & START RIGGING UP TOP DRIVE (CHANGING OUT BAD HYDRAULIC HOSES)
	06:00 - 18:00	12.00	LOC	4	
	18:00 - 06:00	12.00	LOC	4	
12/24/2007	06:00 - 18:00	12.00	LOC	4	RIG UP TOP DRIVE, REPLACED 2 BAD 2" HYDRAULIC HOSES IN SERVICE LOOP & 37 PIN CORD, STARTER IS BAD ON TOP DRIVE MOTOR, MECHANIC WILL BE BACK IN THE MORNING WITH PARTS. RIGGED UP AIR PACKAGE. FINISH RIGGING UP FLOOR, RIGGED UP AIR HEATER, PUT UP TARPS ON SUBS, HOOKED UP ACCUMALATOR LINES, RIG UP SCAFFOLDING AROUND BOP
	18:00 - 06:00	12.00	LOC	4	
	06:00 - 18:00	12.00	LOC	4	
12/25/2007	06:00 - 18:00	12.00	LOC	4	CONTINUE WITH GENERAL RIG UP- CEMENT CELLAR, HOOK UP CHOKE LINE, FAB AIR LINES FOR AIR PACKAGE, RIG UP PREMIX TANK & REMOVE BAD VALVES IN MUD TANKS, PICK UP BALES & ELEVATORS, INSTALL NEW STARTER ON TOP DRIVE MOTOR PRESSURE TEST BOP, 5000# HI, 250# LOW, ANNULAR- 3500#, CSG- 1500#, PERFORM ACCUMALATOR FUNCTION TEST (OK) CONTINUE WITH GENERAL RIG UP- CHANGING OUT BAD BAD VALVES IN MUD TANKS, PRIME YELLOW DOG. START PUTTING UP WINTERIZATION FRAMEWORK ON TOP DRIVE POWER UNIT.
	18:00 - 03:00	9.00	BOP	2	
	03:00 - 06:00	3.00	LOC	4	
12/26/2007	06:00 - 18:00	12.00	LOC	4	FINISH RIGGING UP FLOOR, INSTALL WEAR BUSHING, FINISH RIGGING UP AIR PACKAGE, FAB & INSTALL SHAKER SLIDES, INSTALL NEW VALVES IN SUCTION TANK FINISH RIGGING UP MUD TANKS, FILL SUCTION TANK & FIX LEAKS, HOOK UP GERONIMO LINE, HOOK UP TURNBUCKLES ON DRAWWORKS, PUT DRIP PANS TOGETHER, SLIP & CUT 150' OF DRLG LINE, RACK & STRAP 18 JTS OF DP
	18:00 - 06:00	12.00	LOC	4	
	06:00 - 09:00	3.00	LOC	4	
12/27/2007	09:00 - 10:00	1.00	OTH		FINISH FILLING SUCTION TANK, BUILD DIKE FROM FLARE BOX TO RESERVE PIT, PICK UP TOOLS & TRASH AROUND LOCATION, WENT ON DAYRATE @ 0600, 12/26/07 RESET TORQUE LIMITER ON TOP DRIVE LUBRICATE RIG & TOP DRIVE, SET COM, FUNCTION BLIND RAMS MAKE UP MAGNET TRIP IN HOLE WITH MAGNET PICKING UP 5" DP, TAGGED CEMENT @ 492' TIGHTEN BOLTS ON ROT. HEAD FLANGE WORK MAGNET & TRIP OUT USING SPINNERS LAY DOWN MAGNET RACK, STRAP & CALIPER BHA & ENTER INTO PASON
	10:00 - 11:00	1.00	RIG	1	
	11:00 - 11:30	0.50	FISH	5	
	11:30 - 14:00	2.50	FISH	5	
	14:00 - 15:00	1.00	BOP	1	
	15:00 - 16:00	1.00	FISH	5	
	16:00 - 16:30	0.50	FISH	5	
	16:30 - 19:00	2.50	TRP	1	

## Operations Summary Report

Well Name: TU 3-35-7-21  
 Location: 35- 7-S 21-E 26  
 Rig Name: UNIT

Spud Date: 12/5/2007  
 Rig Release:  
 Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
12/27/2007	19:00 - 21:30	2.50	BOP	1	HOOK UP KILL LINE & HALLIBURTON LINE, INSTALL CELLAR COVER & BUILD UP DIKE FROM FLARE BOX TO RESERVE PIT
	21:30 - 01:30	4.00	TRP	1	TRIP IN PICKING UP BHA
	01:30 - 04:00	2.50	RIG	2	TOP DRIVE REPAIR- TROUBLESHOOT & REPLACE BAD RELAY FOR FORWARD/ REVERSE CONTROL
12/28/2007	04:00 - 06:00	2.00	DRL	4	DRILL CEMENT & FLOAT EQUIPMENT, TAGGED CEMENT @ 494'
	06:00 - 07:00	1.00	CIRC	6	BUILD VOLUME IN SUCTION TANK
	07:00 - 09:00	2.00	CIRC	1	CIRC. THRU BLOOIE LINE & SET FOAMER FOR DRLG, BLOW HOLE CLEAN
	09:00 - 12:30	3.50	DRL	4	AIR DRILL SHOE TRACK & 10' OF NEW HOLE, WOB- 8-12K, RPM- 50, SCFM- 1000
	12:30 - 13:00	0.50	EQT	2	CIRC & PERFORM FIT TO 10.6 EQUIVILENT
	13:00 - 14:00	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION ANNULAR & COM
12/29/2007	14:00 - 04:00	14.00	DRL	1	AIR DRILL WITH FOAM F/ 569'-904', WOB- 12-18K, RPM- 70, SCFM- 1000
	04:00 - 05:00	1.00	RIG	2	REPAIR OIL LINE ON ROT. HEAD
	05:00 - 06:00	1.00	DRL	1	AIR DRILL WITH FOAM F/ 904'-934', WOB- 12-18K, RPM- 70, SCFM- 1000
	06:00 - 10:00	4.00	DRL	1	AIR DRILL WITH FOAM F/ 934'-994', WOB- 15-20K, RPM- 50-70, AIR JAMMER PUMPING 1100 SCFM & 25 GPM DRLG MUD, FOAMING FLUID MW- 8.5, VIS- 35, KCL- 2.8%, K2SO3- 1.75%
	10:00 - 11:00	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION TOP PIPE RAMS & COM
	11:00 - 04:00	17.00	DRL	1	AIR DRILL WITH FOAM F/ 994'-1577', WOB- 12-20K, RPM- 50-60, AIR JAMMER PUMPING 1100 SCFM & 25 GPM DRLG MUD, FOAMING FLUID MW- 8.5, VIS- 35, KCL- 2.8%, K2SO3- 1.75%
12/30/2007	04:00 - 05:30	1.50	SEQ	1	RETIGHTEN SWIVEL & TOP DRIVE CONNECTIONS
	05:30 - 06:00	0.50	DRL	1	AIR DRILL WITH FOAM F/ 1577'-1590', DRLG WITH SAME PARAMETERS
	06:00 - 08:00	2.00	DRL	1	AIR DRILL WITH FOAM F/ 1590'-1638', WOB- 12-20K, RPM- 50, AIR JAMMER PUMPING 1100 SCFM & 25 GPM FOAMING FLUID MW- 8.5, VIS- 37, KCL- 3.1%, K2SO3- 1.85%
	08:00 - 09:00	1.00	RIG	2	REMOVE CLAMP ON SAVER SUB & BREAK KELLY JT.
	09:00 - 11:30	2.50	DRL	1	AIR DRILL WITH FOAM F/ 1638'-1699', DRLG WITH SAME PARAMETERS
	11:30 - 12:30	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION LOWER PIPE RAMS & COM
	12:30 - 17:00	4.50	DRL	1	AIR DRILL WITH FOAM F/ 1699'-1823', DRLG WITH SAME PARAMETERS
	17:00 - 17:30	0.50	SUR	1	CIRC. WITH AIR & SURVEY @ 1790' .6 DEG, 144.6 AZ
	17:30 - 18:00	0.50	DRL	1	ATTEMPT TO START DRLG, MANIFOLD PRESSURE INCREASED TO 1100#, HOLE STARTED TO PACK OFF, BYPASSED AIR TO BLOOIE LINE, BROKE CONNECTION TO LAY DOWN 2 JTS & ACCIDENT OCCURRED
	18:00 - 06:00	12.00	WOT	2	OPERATIONS STOPPED DUE TO ACCIDENT.
12/31/2007	06:00 - 06:00	24.00	WOT	2	OPERATIONS SUSPENDED, WAIT ON ORDERS
1/1/2008	06:00 - 18:00	12.00	WOT	2	OPERATIONS SUSPENDED, WAIT ON ORDERS
	18:00 - 06:00	12.00	LOC	4	RIG DOWN AIR PACKAGE & START RIGGING DOWN BLOOIE LINE
	-				SHORT 3 HANDS ON DAYLIGHTS & SHORT A DRILLER & 2 HANDS ON MORNING TOUR
1/2/2008	06:00 - 18:00	12.00	LOC	4	LOAD & HAUL OUT AIR PACKAGE, RIG DOWN BLOOIE LINE & RIG UP FLOW LINE, FILL MUD TANKS
	18:00 - 00:00	6.00	CIRC	6	PRIME YELLOW DOG, FILL PITS, TRANSFER PREMIX TANK TO ACTIVE PITS, THAW OUT GUN LINES
	00:00 - 01:30	1.50	REAM	1	BACK REAM & WORK TIGHT HOLE 1796'-1760'
	01:30 - 06:00	4.50	FISH	6	ATTEMPT TO BREAK CIRCULATION & WORK STUCK PIPE @ 1751'
	-				DAYLIGHTS SHORT 3 HANDS & MORNING TOUR SHORT 2 HANDS
1/3/2008	06:00 - 11:00	5.00	FISH	6	WORK STUCK PIPE, PU WT- 325K, SO WT- 50K (JARS NOT WORKING)
	11:00 - 12:00	1.00	FISH	6	BREAK OUT & LAY DOWN 2 SINGLES
	12:00 - 16:00	4.00	FISH	4	HOLD SAFETY MEETING, RIG UP & RUN FREE POINT WIRELINE WITH DCT WIRELINE SERVICES, FREE POINT DEPTH- 1546', LEAVING THE BIT, BIT SUB,

Spud Date: 12/5/2007  
Rig Release:  
Rig Number: 109

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**SUNDRY NOTICES AND REPORTS ON WELLS**

**Do not use this form for proposals to drill or reenter an abandoned well. Use Form 3160-3 (APD) for such proposals.**

FORM APPROVED  
OMB No. 1004-0135  
Expires July 31, 1996

5. Lease Serial No.

UTU-73681

6. If Indian, Allottee or Tribe Name

N/A

7. If Unit or CA/Agreement, Name and/or No.

TAPADERO UNIT

8. Well Name and No.

TU 3-35-7-21

9. API Well No.

43-047-38995

10. Field and Pool, or Exploratory Area

WONSITS VALLEY

11. County or Parish, State

UINTAH

**SUBMIT IN TRIPLICATE - Other Instructions on reverse side**

CONFIDENTIAL

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

QUESTAR EXPLORATION & PRODUCTION COMPANY

3a. Address

11002 East 17500 South, Vernal, UT 84078

3b. Phone No. (include area code)

435-781-4331

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

810' FNL 1813' FWL NENW SEC 35, T7S-R21E

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input checked="" type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operations (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once Testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

QUESTAR EXPLORATION AND PRODUCTION COMPANY (QEP) REQUESTS AUTHORIZATION TO SIDETRACK THIS WELLBORE DUE TO STUCK PIPE AT APPROXIMATELY 1822'.

QEP PROPOSES TO SET A 400' CEMENT PLUG FROM 1021' TO 1421' AND BEGIN DRILLING OPERATION KICKING OFF FROM THE TOP OF CEMENT PLUG AND CONTINUING DRILLING OPERATIONS TO APPROVED BOTTOM HOLE LOCATION TO A TOTAL DEPTH OF 17,950'.

PLEASE REFER TO ATTACHED WELLBORE DIAGRAM.

COPY SENT TO OPERATOR  
Date: 1-16-2008  
Initials: KS

FOR TECHNICAL QUESTIONS PLEASE CONTACT JIM DAVIDSON, CHIEF DRILLING ENGINEER @ 303-308-3090.

14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed)

Jan Nelson

Signature

Title

Regulatory Affairs

Date

January 7, 2008

THIS SPACE FOR FEDERAL OR STATE USE

Approved by

Title

Accepted by the  
Utah Division of  
Oil, Gas and Mining

Date

Federal Approval Of This  
Action Is Necessary

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on reverse)

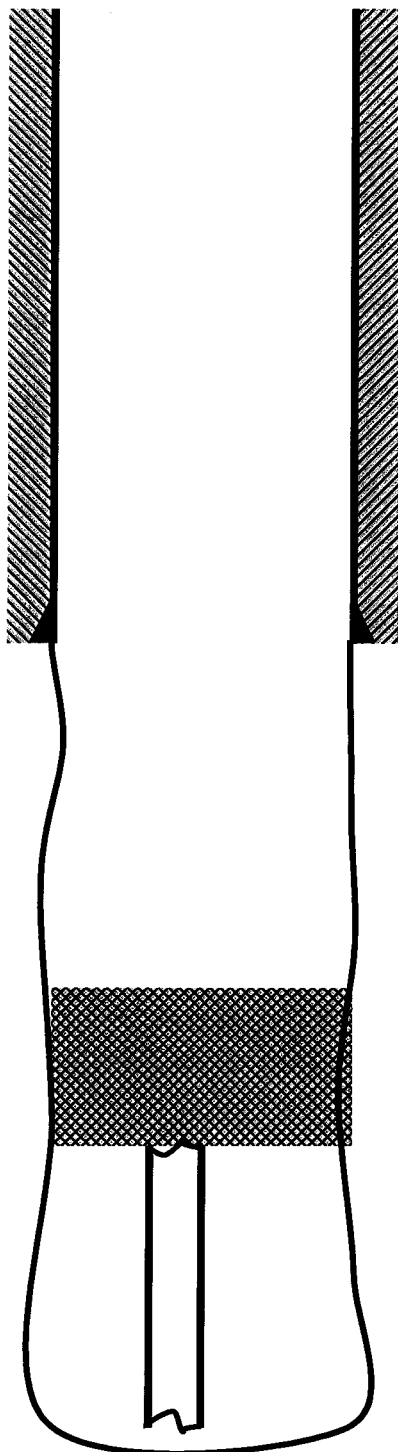
RECEIVED

JAN 10 2008

CONFIDENTIAL OIL, GAS & MINING



**TU 3-35-7-21**



**Preset Casing @ 537'**  
13-3/8" cemented to surface

**Top of Cmt Plug at 1021'**  
650 sxs @ 17.5 ppg  
Yield 0.94 cu. ft/sx; 3.37 gals per sx  
Type G cement w/ 0.5% WOC CFR-3

**Top of 5" HWDP at 1421'**  
**Bottom of Cmt Plug @ 1421'**

Left in Hole: 3-8" DC's, X-over, 6-6" DC's, X-o  
and 1 jnt 5" HWDP

**Original TD - 1822' 12-1/4" hole**

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**SUNDRY NOTICES AND REPORTS ON WELLS**

*Do not use this form for proposals to drill or reenter an abandoned well. Use Form 3160-3 (APD) for such proposals.*

FORM APPROVED  
OMB No. 1004-0135  
Expires July 31, 1996

5. Lease Serial No.

UTU-73681

6. If Indian, Allottee or Tribe Name

N/A

7. If Unit or CA/Agreement, Name and/or No.

TAPADERO UNIT

8. Well Name and No.

TU 3-35-7-21

9. API Well No.

43-047-38995

10. Field and Pool, or Exploratory Area

WONSITS VALLEY

11. County or Parish, State

UINTAH

**SUBMIT IN TRIPLICATE - Other Instructions on reverse side**

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

QUESTAR EXPLORATION AND PRODUCTION COMPANY

3a. Address

11002 East 17500 South, Vernal, UT 84078

3b. Phone No. (include area code)

435-781-4331

3

810' FNL 1813' FWL NENW SEC. 35, T7S-R21E

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input checked="" type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	Other _____
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operations (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once Testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

QUESTAR EXPLORATION AND PRODUCTION COMPANY (QEP) IS SUBSTITUTING 47# , HCP-110 LT&C CASING FOR THE ORIGINALLY PERMITTED SLIJ-II THREAD DUE TO UNAVAILABILITY OF FLOAT EQUIPMENT FOR THE SLIJ-II.

**COPY SENT TO OPERATOR**

Date: 2-27-2008

Initials: KS

Federal Approval Of This  
Action Is Necessary

Approved by the  
Bureau of Land Management  
2/16/08

*[Signature]*

14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed)

Jan Nelson

Signature

Title

Regulatory Affairs

Date

January 21, 2008

**THIS SPACE FOR FEDERAL OR STATE USE**

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

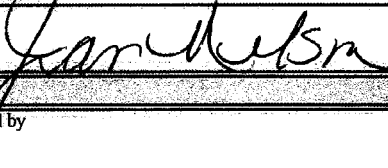

(Instructions on reverse)

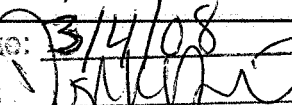
**JAN 25 2008**

DIV. OF OIL, GAS & MINING

**CONFIDENTIAL**

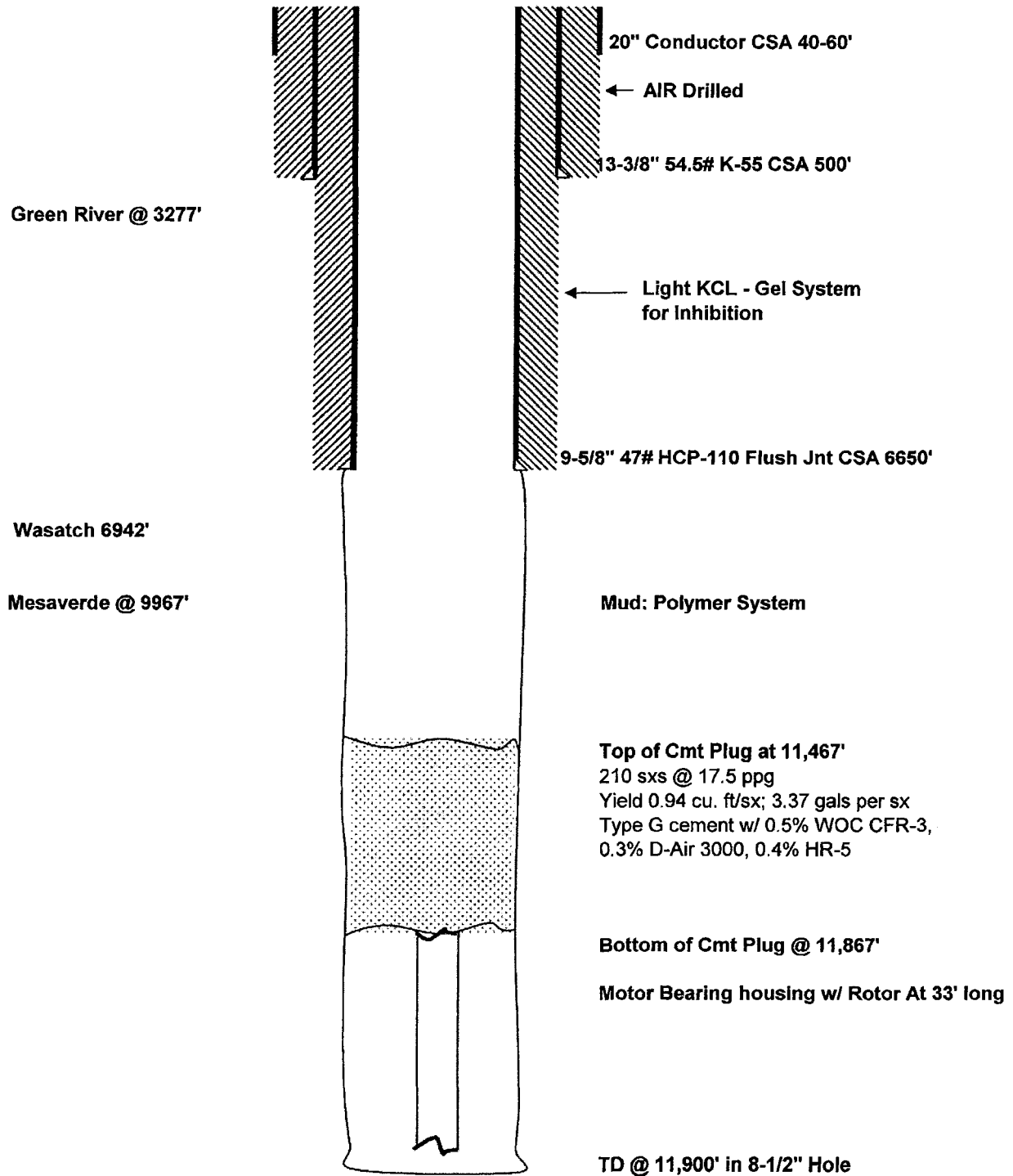
CONFIDENTIAL

Form 3160-5 (November 1994)		UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT <b>SUNDRY NOTICES AND REPORTS ON WELLS</b> <i>Do not use this form for proposals to drill or reenter an abandoned well. Use Form 3160-3 (APD) for such proposals.</i>	
		FORM APPROVED OMB No. 1004-0135 Expires July 31, 1996	
		5. Lease Serial No. <b>UTU-73681</b>	
		6. If Indian, Allottee or Tribe Name <b>N/A</b>	
<b>SUBMIT IN TRIPLICATE - Other Instructions on reverse side</b>		7. If Unit or CA/Agreement, Name and/or No. <b>TAPADERO UNIT</b>	
1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		8. Well Name and No. <b>TU 3-35-7-21</b>	
2. Name of Operator <b>QUESTAR EXPLORATION &amp; PRODUCTION COMPANY</b>		9. API Well No. <b>43-047-38995</b>	
3a. Address <b>11002 East 17500 South, Vernal, UT 84078</b>	3b. Phone No. (include area code) <b>435-781-4331</b>	10. Field and Pool, or Exploratory Area <b>WONSITS VALLEY</b>	
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) <b>810' FNL 1813' FWL NENW SEC 35, T7S-R21E</b>		11. County or Parish, State <b>UINTAH</b>	
<b>12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA</b>			
TYPE OF SUBMISSION		TYPE OF ACTION	
<input checked="" type="checkbox"/> Notice of Intent  <input type="checkbox"/> Subsequent Report  <input type="checkbox"/> Final Abandonment Notice		<input type="checkbox"/> Acidize <input type="checkbox"/> Deepen <input type="checkbox"/> Production (Start/Resume) <input type="checkbox"/> Water Shut-Off <input type="checkbox"/> Alter Casing <input type="checkbox"/> Fracture Treat <input type="checkbox"/> Reclamation <input type="checkbox"/> Well Integrity <input type="checkbox"/> Casing Repair <input type="checkbox"/> New Construction <input type="checkbox"/> Recomplete <input type="checkbox"/> Other _____ <input checked="" type="checkbox"/> Change Plans <input type="checkbox"/> Plug and Abandon <input type="checkbox"/> Temporarily Abandon <input type="checkbox"/> Convert to Injection <input type="checkbox"/> Plug Back <input type="checkbox"/> Water Disposal	
13. Describe Proposed or Completed Operations (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once Testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)  <b>QUESTAR EXPLORATION AND PRODUCTION COMPANY (QEP) REQUESTS AUTHORIZATION TO SIDETRACK THIS WELLBORE. ON MARCH 1ST THE MOTOR CAME APART @ 11,900'. QEP PROPOSES TO SET A 400' CEMENT PLUG FROM 11,467' TO 11,867' AND BEGIN DRILLING OPERATION KICKING OFF FROM THE TOP OF CEMENT PLUG AND CONTINUING DRILLING OPERATIONS TO APPROVED BOTTOM HOLE LOCATION TO A TOTAL DEPTH OF 17,950'.</b>  <b>THE FISH LEFT IN HOLE CONSISTS OF:</b> <b>MOTOR BEARING HOUSING WITH ROTOR AT 33' LONG</b>  <b>PLEASE REFER TO ATTACHED WELLBORE DIAGRAM.</b>  <b>FOR TECHNICAL QUESTIONS PLEASE CONTACT JIM DAVIDSON, CHIEF DRILLING ENGINEER @ 303-308-3090.</b>			
14. I hereby certify that the foregoing is true and correct			
Name (Printed/Typed) <b>Jan Nelson</b>		Title <b>Regulatory Affairs</b>	
Signature 		Date <b>March 4, 2008</b>	
<b>THIS SPACE FOR FEDERAL OR STATE USE</b>			
Approved by 		Title <b>RECEIVED</b> <b>MAR 04 2008</b>	
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		Office <b>DIV. OF OIL, GAS &amp; MINING</b>	
Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.			
(Instructions on reverse)			

Oil, Gas and Mining  
 Date: **3/4/08**  
 By:   
 Federal Approval Of This Action Is Necessary

CONFIDENTIAL

## TU 3-35-7-21 Sidetrack II



43-047-38995 RECEIVED

35 7s 212

APR 01 2008

DIV. OF OIL, GAS &amp; MINING

Questar E &amp; P

Page 1 of 28

**CONFIDENTIAL****Operations Summary Report**

Legal Well Name: TU 3-35-7-21ST2

Common Well Name: TU 3-35-7-21ST2

Event Name: DRILLING

Contractor Name: Unit Drilling Co.

Rig Name: UNIT

Start: 12/8/2007

Rig Release:

Rig Number: 109

Spud Date: 12/5/2007

End:

Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
12/5/2007	17:30 - 06:00	12.50	DRL	1	DRLSUR	RIG UP & DRILL 17.5 SURFACE HOLE F/ 80'-570'
	06:00 - 09:00	3.00	CSG	6	DRLSUR	LAY DOWN DRILL STRING & RUN 13 3/8" CSG
	09:00 - 12:00	3.00	CMT	2	DRLSUR	RIG UP & CEMENT CSG WITH 500 SX OF PREMIUM CEMENT, RECOVERED 54 BBLs OF CEMENT TO SURFACE, PLUG PUMPED, FLOATS DID NOT HOLD, SHUT IN WITH 200 # & WOC
12/11/2007	06:00 - 18:00	12.00	LOC	4	RDMO	PREPAIR DERRICK FOR LAYING DOWN - WORK ON WIND WALLS AND RIGGING DOWN FLOOR - RIG DOWN TOP DRIVE MOTOR PACKAGE - RIG DOWN ACC. FROM SUIT CASE - TRUCKS HAULED ALL OF THE 4" DRILL PIPE AND 4 LOADS OF 5" DP. - ALL TRUCKS ARE CHAINED UP - USING OUR FORKLIFT ON RIG SIDE AND THERES ON OTHER LOCATION
	18:00 - 06:00	12.00	LOC	4	RDMO	CLEAN SUBS ALL NIGHT - TEAR PUMPS APART FOR RIG MOVE AND CHECK ALL PARTS FOR WASH AND OR CRACKS - SNOWED 5 INCHES ON LOCATION LAST NIGHT - PLAN TO GET 5" HAULED OUT THIS MORNING - WHILE DERRICK IS UP WE WILL HAVE CRANE OVER DOING BUSTER EQUIPMENT AND SOLIDS CONTROL WHILE WE WAIT FOR PIPE TO MOVED
12/12/2007	06:00 - 18:00	12.00	LOC	4	RDMO	RIG DOWN GENERAL - REBLADE ROAD AND LOCATION AFTER IT SNOWED AGAIN - MOVE AND SET SHACKS - DIG UP POWER CORD TO TRANSFORMER AS LAST 15' FROZE SOLID IN PIPE - FINISH HAULING 5" DP - MOVE TOP DRIVE POWER UNIT AND DIG UP BURIED FLARE LINES AND RE FILL HOLE - REMOVE OIL BASE SAFETY PROTECTION LINERS AND SET ON SIDE OF LOCATION - LOWER DERRICK - SHUT IN BOILER AND BLOW ALL LINES - UNSTRING POER CORDS TO DRAWWORKS - KILL GENERATORS - RIG DOWN BAR HOPPERS - AND HOPPER HOUSE - HAUL AWAY 400 BBL TANKS - MUD VAC SYSTEM - DARK AT 1700
12/13/2007	18:00 - 06:00	12.00	LOC	4	RDMO	WAIT ON DAY LIGHTS
	06:00 - 18:00	12.00	LOC	4	RDMO	REBLADE ROAD TO NEW LOCATION - BACK END OF RIG MOVED OUT - SUCTION TANK AND DRAWWORKS SET ON NEW LOCATION FOR REPAIRS - RIG NOW ON FOUR LOCATIONS WITH 50% ON NEW LOCATION - 85% RIGGED DOWN - DERRICK STILL ON FLOOR - LOCATION BOTTOM FELL APART - HAD CRANE AND BOTH BIG BOB-TAIL TRUCKS STUCK MULTIPLE TIMES - WHEN DROVE BACK ON LOCATION AT 1530 CRANE WAS STUCK - 8 HANDS WATCHING UNTIL WE HAD A DONKEY CHEWING MEETING THEN HAD A MEETING WITH TOOL PUSHER WHO WAS KNEE DEEP IN MUD HELPING ON THE OTHER SIDE OF RIG - WE WILL CUT CONDUCTOR AND PREP CASING FOR A SECTION THIS MORNING, WILL NOT WELD UNTIL MATS AND BOTTOM SUBS SET AND CENTERED WHICH HOPEFULLY WILL BE LATE TONIGHT - THAT WAY HE WILL HAVE EQUIPMENT MOVING AROUND HIM.
12/14/2007	18:00 - 06:00	12.00	LOC	4	RDMO	WAIT ON DAYLIGHTS
	06:00 - 18:00	12.00	LOC	3	RDMO	TEAR DRAWWORKS APART WITH FAILURE ON BOTH SIDES OF DRUM SHAFT - PREPARE FOR SHIPPING TO OK. TWO HANDS HELPED INSTEAD OF HELPING TO MOVE RIG - DERRICK SET OFF AND HAULED TO OTHER LOCATION - ONE SUB PIECE LIFTED OFF AND LOADED OUT - MUD TANKS TOOK 3 WINCH TRUCKS TO SKID TO STABLE GROUND TO LOAD OUT - HYDRILL PULLED OFF AND SET ON ROAD TRUCK FOR ELEMENT REPLACEMENT IN CASPER - 3 LOADS OF MATS HAULED IN
12/15/2007	18:00 - 06:00	12.00	LOC	3	RDMO	WAIT ON DAY LIGHTS
	06:00 - 18:00	12.00	LOC	3	RDMO	SET DOWN AND LOAD OUT SUBS - NIPPLE STACK DOWN AND

## Operations Summary Report

Legal Well Name: TU 3-35-7-21ST2  
 Common Well Name: TU 3-35-7-21ST2  
 Event Name: DRILLING  
 Contractor Name: Unit Drilling Co.  
 Rig Name: UNIT

Start: 12/8/2007 Spud Date: 12/5/2007  
 Rig Release: End:  
 Rig Number: 109 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
12/15/2007	06:00 - 18:00	12.00	LOC	3	RDMO	MOVE OUT - SET NIGHT CAP ON WELLHEAD - SET LINER DOWN AND SET MATS - SET SUBS - SET SHAKER AND MIDDLE TANK - WELDERS AND HANDS SEEM SLOW - DRUM NOT LOADED OUT UNTIL 10:30
12/16/2007	18:00 - 06:00	12.00	LOC	4	RDMO	WAIT ON DAY LIGHTS
	06:00 - 18:00	12.00	LOC	3	RDMO	SET IN BOP'S - FINISH SUBS AND SPREADERS - SET GAS BUSTER AND CHOKE LINES - MOVE PIPE AGAIN SO WE CAN GET DERRICK ON SMALL LOCATION - 70% OF BACK END SET IN - ONE TRENCHER COULDNT DID DONE - GOT ANOTHER ONE AND BROKE CHAIN - 15% TRENCHING DOWN - PUT NEW SALA BLOCK IN DERRICK - PUT DERRICK RUNNERS ON TO PROTECT KELLY HOSE AND TOP DRIVE HOSES
12/17/2007	18:00 - 06:00	12.00	LOC	3	RDMO	WAIT ON DAYLIGHTS
	06:00 - 18:00	12.00	LOC	4	RDMO	SET DERRICK ON FLOOR - SET CATWALK AND BEAVER SLIDE - SET UP FLARE BOX - BACK END ALL SET IN - WE HAVE BAR HOPPERS AND STANDS LEFT - START CHANGING OUT HIGH PRESSURE LINES ON FLOW LINE AND VENT LINE - BOTH ARE WASHED OUT - WE ARE PUTTING IN NEW 10" BALL VALVES - WILL TAKE TWO DAYS OF REFABRICATION TO FINISH, COULD FINISH IT BY MONDAY NIGHT - ONE CREW PULLED CORDS WHILE TRYING TO START RIG MOTOR ALL DAY WITH NO LUCK - TRENCHER REPAIRED AND WILL BE DONE BY MONDAY NOON - TRUCKS ARE GONE AND CRANE DONE BY NOON - SOME ELECTRICAL CORDS NEED REPLACING AS IT LOOKS LIKE THEY WERE CUT - UNIT MECHANICS ARE CHANGING CHAINS ON DRAWWORKS AND OTHER SMALL REPAIRS -
12/18/2007	18:00 - 06:00	12.00	RIG	2	RDMO	AT THIS TIME I AM SHOWING TROUBLED TIME OR AS A MARKER AS WE SHOULD NOW BE ON UNIT TIME - IT IS MARKED ON IADC
	06:00 - 18:00	12.00	LOC	4	MIRU	RIGGING UP ON UNIT TIME - DRAWWORKS WILL BE HERE TUESDAY MORNING - CRANE AND MECHANICS ARE LINED UP TO PUT TOGETHER - DID NOT FINISH NEW FLOW LINE AND VENT LINE SYSTEM, WE DID GET PROBLEM AREAS SOLVED AND COULD BE DONE TUESDAY NIGHT. WELDERS INSTALLED DRAWWORKS TIE DOWNS - ALSO WELDER REPAIRED OIL LEAK - SUPPORT LEGS WELDED ON WELL HEAD , WILL POUR CEMENT WHEN STACK IS CENTERED AND TORQUED UP - WILL START DIGGING IN FLARE LINES THIS MORNING - WILL GO TO RIG GEN. TODAY - UNIT WELDERS STILL WORKING ON THE MOVING OF GUN LINES(SHOULD BE DONE TODAY) MY WELDERS HAVE FINISH SUCTION-JUST NEED TO INSTALL BRACKETS FOR EXTRA AGGITATOR AND FINISH MOVING HOPPER SUCTION SO BLADES FIT ON BOTTOM - WILL EMAIL YOU COSTS FOR BACK BILLING UNIT FOR YOUR MEETING
12/19/2007	18:00 - 06:00	12.00	LOC	4	MIRU	WAIT ON DAYLIGHTS
	06:00 - 18:00	12.00	LOC	4	MIRU	DRUM SHAFT SHOWED UP AND THEY STARTED PUTTING IT TOGETHER - 70% DONE - RIG UP - UNIT WELDERS WORKING ON GUN LINES ECT - ELECTRICIAN SHOWED AND DID SOME REPAIRS - STARTED DIGGING IN FLARE LINES, GROUND FROZE AND ALL ROCK - HAD TO GET A BACKHOE WITH HAMMER DRILL TO HELP OUT - ROUSTABOUTS ON THE VERY SLOW SIDE - REPAIRS ALSO BEING DOWN ON TOP DRIVE POWER UNIT BY A TESCO HAND -
	18:00 - 06:00	12.00	LOC	4	MIRU	WAIT ON DAYLIGHTS

## Operations Summary Report

Legal Well Name: TU 3-35-7-21ST2  
 Common Well Name: TU 3-35-7-21ST2  
 Event Name: DRILLING  
 Contractor Name: Unit Drilling Co.  
 Rig Name: UNIT

Start: 12/8/2007  
 Rig Release:  
 Rig Number: 109  
 Spud Date: 12/5/2007  
 End:  
 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
12/20/2007	06:00 - 18:00	12.00	LOC	4	MIRU	FINISHED CHIPPING AWAY ON FLARE LINE DITCH - HOOKED UP ALL FLARE LINES AND HAVE IT 50% COVERED - HOOKED UP RT. HEAD (1 7/8 STUD FELL IN HOLE-WILL RETRIEVE WITH MAGNET AND DRILL PIPE ) - WELDERS FINISHED GUN LINES FOR UNIT - STABILIZER BRACES AND PADS DOWN ON WELLHEAD - STEAM NOW CIRCULATING RIG - FINISHED PUTTING DRAWWORKS TOGETHER AND SET ON FLOOR AT DARK TIME
12/21/2007	18:00 - 06:00	12.00	LOC	4	MIRU	WAIT ON DAYLIGHTS ON UNIT TIME
	06:00 - 10:00	4.00	LOC	4	MIRU	SET ELECTRICAL SUITCASE FOR DRAWWORKS - SET DOG HOUSE - KOOMEY HOUSE AND AIR HEATER ON UNIT TIME
	10:00 - 18:00	8.00	LOC	4	MIRU	RUN DRAWWORKS FULL OPEN FOWARD AND BACKWARDS - NO VIBRATION - HOOK UP EATON BRAKE AND RUN FULL OPEN FOWARD AND REVERSE - NO VIBRATION - UNIT WELDERS FINISHED SAFETY RAILING IN SUBS - MECHANICS WORKING ON TOP DRIVE-SERVICE PUMPS AND CHANGE OUT ORINGS AND DUE 90 DAY CHECK - TESCO WILL CHANGE OUT HYD. COUPLER ON FRIDAY AND DETROIT MECHANIC WILL CHECK OUT TOP END OF MOTOR - PREMIX AND SUCTION TANK FINISHED EXCEPT FOR TURNING AGGITATOR 180 IN SUCTION TANK - WILL TORQUE UP BOP'S IN MORNING - WILL SET PREMIX TANK AND BLUE LINE IN MORNING - DERRICK IS STRUNG UP, FOUND FLAT SPOT 100' FEET INTO DRILL LINE - CUT AND LAYED DOWN, SHOULD RAISE DERRICK TOMORRO AND WILL BREAK TOURS - TRANSFERED 1585 BBL'S OIL BASE FROM OLD LOCATION TO UNIT 328 - SOLIBOND MOVING IN EQUIPMENT LATE AFTERNOON
12/22/2007	18:00 - 06:00	12.00	LOC	4	MIRU	TAKE RIG LOADER AND OPEN ROAD FOR CREWS AND WELDERS ECT. TORQUE UP BOP'S - HELP WELDERS ON BLUEY LINE - RAISE DERRICK - START RIGGING UP FLOOR - MECHANICS FINISHED TOP DRIVE - INSTALL STEEL LINE IN SUITCASE FOR AIR DRILLING - SET PREMIX TANK RIG UP FLOOR - DIG OUT AND START PUTTING TOP DRIVE PIECES TOGETHER RIG UP FLOOR & START BOLTING TORQUE TUBE TOGETHER, FINISHED RIGGING UP BLOOIE LINE, SET IN AIR PACKAGE INSTALL TORQUE TUBE IN DERRICK & START RIGGING UP TOP DRIVE (CHANGING OUT BAD HYDRAULIC HOSES) RIG UP TOP DRIVE, REPLACED 2 BAD 2" HYDRAULIC HOSES IN SERVICE LOOP & 37 PIN CORD, STARTER IS BAD ON TOP DRIVE MOTOR, MECHANIC WILL BE BACK IN THE MORNING WITH PARTS. RIGGED UP AIR PACKAGE. FINISH RIGGING UP FLOOR, RIGGED UP AIR HEATER, PUT UP TARPS ON SUBS, HOOKED UP ACCUMALATOR LINES, RIG UP SCAFFOLDING AROUND BOP CONTINUE WITH GENERAL RIG UP- CEMENT CELLAR, HOOK UP CHOKE LINE, FAB AIR LINES FOR AIR PACKAGE, RIG UP PEMIX TANK & REMOVE BAD VALVES IN MUD TANKS, PICK UP BALES & ELEVATORS, INSTALL NEW STARTER ON TOP DRIVE MOTOR PRESSURE TEST BOP, 5000# HI, 250# LOW, ANNULAR- 3500#, CSG- 1500#, PERFORM ACCUMALATOR FUNCTION TEST (OK) CONTINUE WITH GENERAL RIG UP- CHANGING OUT BAD BAD VALVES IN MUD TANKS, PRIME YELLOW DOG. START PUTTING
	06:00 - 10:00	4.00	OTH		MIRU	
	10:00 - 18:00	8.00	LOC	4	MIRU	
12/23/2007	18:00 - 06:00	12.00	LOC	4	MIRU	CONTINUE WITH GENERAL RIG UP- CEMENT CELLAR, HOOK UP CHOKE LINE, FAB AIR LINES FOR AIR PACKAGE, RIG UP PEMIX TANK & REMOVE BAD VALVES IN MUD TANKS, PICK UP BALES & ELEVATORS, INSTALL NEW STARTER ON TOP DRIVE MOTOR PRESSURE TEST BOP, 5000# HI, 250# LOW, ANNULAR- 3500#, CSG- 1500#, PERFORM ACCUMALATOR FUNCTION TEST (OK) CONTINUE WITH GENERAL RIG UP- CHANGING OUT BAD BAD VALVES IN MUD TANKS, PRIME YELLOW DOG. START PUTTING
	06:00 - 18:00	12.00	LOC	4	MIRU	
	18:00 - 06:00	12.00	LOC	4	MIRU	
12/24/2007	06:00 - 18:00	12.00	LOC	4	MIRU	CONTINUE WITH GENERAL RIG UP- CEMENT CELLAR, HOOK UP CHOKE LINE, FAB AIR LINES FOR AIR PACKAGE, RIG UP PEMIX TANK & REMOVE BAD VALVES IN MUD TANKS, PICK UP BALES & ELEVATORS, INSTALL NEW STARTER ON TOP DRIVE MOTOR PRESSURE TEST BOP, 5000# HI, 250# LOW, ANNULAR- 3500#, CSG- 1500#, PERFORM ACCUMALATOR FUNCTION TEST (OK) CONTINUE WITH GENERAL RIG UP- CHANGING OUT BAD BAD VALVES IN MUD TANKS, PRIME YELLOW DOG. START PUTTING
	18:00 - 06:00	12.00	LOC	4	MIRU	
12/25/2007	06:00 - 18:00	12.00	LOC	4	MIRU	CONTINUE WITH GENERAL RIG UP- CEMENT CELLAR, HOOK UP CHOKE LINE, FAB AIR LINES FOR AIR PACKAGE, RIG UP PEMIX TANK & REMOVE BAD VALVES IN MUD TANKS, PICK UP BALES & ELEVATORS, INSTALL NEW STARTER ON TOP DRIVE MOTOR PRESSURE TEST BOP, 5000# HI, 250# LOW, ANNULAR- 3500#, CSG- 1500#, PERFORM ACCUMALATOR FUNCTION TEST (OK) CONTINUE WITH GENERAL RIG UP- CHANGING OUT BAD BAD VALVES IN MUD TANKS, PRIME YELLOW DOG. START PUTTING
	18:00 - 03:00	9.00	BOP	2	MIRU	
	03:00 - 06:00	3.00	LOC	4	MIRU	

## Operations Summary Report

Legal Well Name: TU 3-35-7-21ST2  
 Common Well Name: TU 3-35-7-21ST2  
 Event Name: DRILLING  
 Contractor Name: Unit Drilling Co.  
 Rig Name: UNIT

Start: 12/8/2007  
 Rig Release:  
 Rig Number: 109  
 Spud Date: 12/5/2007  
 End:  
 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
12/25/2007	03:00 - 06:00	3.00	LOC	4	MIRU	UP WINTERIZATION FRAMEWORK ON TOP DRIVE POWER UNIT.
12/26/2007	06:00 - 18:00	12.00	LOC	4	MIRU	FINISH RIGGING UP FLOOR, INSTALL WEAR BUSHING, FINISH RIGGING UP AIR PACKAGE, FAB & INSTALL SHAKER SLIDES, INSTALL NEW VALVES IN SUCTION TANK
	18:00 - 06:00	12.00	LOC	4	MIRU	FINISH RIGGING UP MUD TANKS, FILL SUCTION TANK & FIX LEAKS, HOOK UP GERONIMO LINE, HOOK UP TURNBUCKLES ON DRAWWORKS, PUT DRIP PANS TOGETHER, SLIP & CUT 150' OF DRLG LINE, RACK & STRAP 18 JTS OF DP
12/27/2007	06:00 - 09:00	3.00	LOC	4	MIRU	FINISH FILLING SUCTION TANK, BUILD DIKE FROM FLARE BOX TO RESERVE PIT, PICK UP TOOLS & TRASH AROUND LOCATION, WENT ON DAYRATE @ 0600, 12/26/07
	09:00 - 10:00	1.00	OTH		DRLIN1	RESET TORQUE LIMITER ON TOP DRIVE
	10:00 - 11:00	1.00	RIG	1	DRLIN1	LUBRICATE RIG & TOP DRIVE, SET COM, FUNCTION BLIND RAMS
	11:00 - 11:30	0.50	FISH	5	DRLIN1	MAKE UP MAGNET
	11:30 - 14:00	2.50	FISH	5	DRLIN1	TRIP IN HOLE WITH MAGNET PICKING UP 5" DP, TAGGED CEMENT @ 492'
	14:00 - 15:00	1.00	BOP	1	DRLIN1	TIGHTEN BOLTS ON ROT. HEAD FLANGE
	15:00 - 16:00	1.00	FISH	5	DRLIN1	WORK MAGNET & TRIP OUT USING SPINNERS
	16:00 - 16:30	0.50	FISH	5	DRLIN1	LAY DOWN MAGNET
	16:30 - 19:00	2.50	TRP	1	DRLIN1	RACK, STRAP & CALIPER BHA & ENTER INTO PASON
	19:00 - 21:30	2.50	BOP	1	DRLIN1	HOOK UP KILL LINE & HALLIBURTON LINE, INSTALL CELLAR COVER & BUILD UP DIKE FROM FLARE BOX TO RESERVE PIT
	21:30 - 01:30	4.00	TRP	1	DRLIN1	TRIP IN PICKING UP BHA
	01:30 - 04:00	2.50	RIG	2	DRLIN1	TOP DRIVE REPAIR- TROUBLESHOOT & REPLACE BAD RELAY FOR FORWARD/ REVERSE CONTROL
12/28/2007	04:00 - 06:00	2.00	DRL	4	DRLIN1	DRILL CEMENT & FLOAT EQUIPMENT, TAGGED CEMENT @ 494'
	06:00 - 07:00	1.00	CIRC	6	DRLIN1	BUILD VOLUME IN SUCTION TANK
	07:00 - 09:00	2.00	CIRC	1	DRLIN1	CIRC. THRU BLOOIE LINE & SET FOAMER FOR DRLG, BLOW HOLE CLEAN
	09:00 - 12:30	3.50	DRL	4	DRLIN1	AIR DRILL SHOE TRACK & 10' OF NEW HOLE, WOB- 8-12K, RPM- 50, SCFM- 1000
	12:30 - 13:00	0.50	EQT	2	DRLIN1	CIRC & PERFORM FIT TO 10.6 EQUIVLENT
	13:00 - 14:00	1.00	RIG	1	DRLIN1	LUBRICATE RIG & TOP DRIVE, FUNCTION ANNULAR & COM
	14:00 - 04:00	14.00	DRL	1	DRLIN1	AIR DRILL WITH FOAM F/ 569'-904', WOB- 12-18K, RPM- 70, SCFM- 1000
	04:00 - 05:00	1.00	RIG	2	DRLIN1	REPAIR OIL LINE ON ROT. HEAD
	05:00 - 06:00	1.00	DRL	1	DRLIN1	AIR DRILL WITH FOAM F/ 904'-934', WOB- 12-18K, RPM- 70, SCFM- 1000
12/29/2007	06:00 - 10:00	4.00	DRL	1	DRLIN1	AIR DRILL WITH FOAM F/ 934'-994', WOB- 15-20K, RPM- 50-70, AIR JAMMER PUMPING 1100 SCFM & 25 GPM DRLG MUD, FOAMING FLUID MW- 8.5, VIS- 35, KCL- 2.8%, K2SO3- 1.75%
	10:00 - 11:00	1.00	RIG	1	DRLIN1	LUBRICATE RIG & TOP DRIVE, FUNCTION TOP PIPE RAMS & COM
	11:00 - 04:00	17.00	DRL	1	DRLIN1	AIR DRILL WITH FOAM F/ 994'-1577', WOB- 12-20K, RPM- 50-60, AIR JAMMER PUMPING 1100 SCFM & 25 GPM DRLG MUD, FOAMING FLUID MW- 8.5, VIS- 35, KCL- 2.8%, K2SO3- 1.75%
	04:00 - 05:30	1.50	SEQ	1	DRLIN1	RETIGHTEN SWIVEL & TOP DRIVE CONNECTIONS
	05:30 - 06:00	0.50	DRL	1	DRLIN1	AIR DRILL WITH FOAM F/ 1577'-1590', DRLG WITH SAME PARAMETERS
12/30/2007	06:00 - 08:00	2.00	DRL	1	DRLIN1	AIR DRILL WITH FOAM F/ 1590'-1638', WOB- 12-20K, RPM- 50, AIR JAMMER PUMPING 1100 SCFM & 25 GPM FOAMING FLUID MW- 8.5, VIS- 37, KCL- 3.1%, K2SO3- 1.85%
	08:00 - 09:00	1.00	RIG	2	DRLIN1	REMOVE CLAMP ON SAVER SUB & BREAK KELLY JT.
	09:00 - 11:30	2.50	DRL	1	DRLIN1	AIR DRILL WITH FOAM F/ 1638'-1699', DRLG WITH SAME



## Operations Summary Report

Legal Well Name: TU 3-35-7-21ST2  
 Common Well Name: TU 3-35-7-21ST2  
 Event Name: DRILLING  
 Contractor Name: Unit Drilling Co.  
 Rig Name: UNIT

Start: 12/8/2007  
 Rig Release:  
 Rig Number: 109  
 Spud Date: 12/5/2007  
 End:  
 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
12/30/2007	09:00 - 11:30	2.50	DRL	1	DRLIN1	PARAMETERS
	11:30 - 12:30	1.00	RIG	1	DRLIN1	LUBRICATE RIG & TOP DRIVE, FUNCTION LOWER PIPE RAMS & COM
	12:30 - 17:00	4.50	DRL	1	DRLIN1	AIR DRILL WITH FOAM F/ 1699'-1822', DRLG WITH SAME PARAMETERS
	17:00 - 17:30	0.50	SUR	1	DRLIN1	CIRC. WITH AIR & SURVEY @ 1790'-.6 DEG, 144.6 AZ
	17:30 - 18:00	0.50	DRL	1	DRLIN1	ATTEMPT TO START DRLG, MANIFOLD PRESSURE INCREASED TO 1100#, HOLE STARTED TO PACK OFF, BYPASSED AIR TO BLOOIE LINE, BROKE CONNECTION TO LAY DOWN 2 JTS & ACCIDENT OCCURRED
12/31/2007	18:00 - 06:00	12.00	WOT	2	DRLIN1	OPERATIONS STOPPED DUE TO ACCIDENT.
	06:00 - 06:00	24.00	WOT	2	DRLIN1	OPERATIONS SUSPENDED, WAIT ON ORDERS
1/1/2008	06:00 - 18:00	12.00	WOT	2	DRLIN1	OPERATIONS SUSPENDED, WAIT ON ORDERS
	18:00 - 06:00	12.00	LOC	4	DRLIN1	RIG DOWN AIR PACKAGE & START RIGGING DOWN BLOOIE LINE
1/2/2008	-					SHORT 3 HANDS ON DAYLIGHTS & SHORT A DRILLER & 2 HANDS ON MORNING TOUR
	06:00 - 18:00	12.00	LOC	4	DRLIN1	LOAD & HAUL OUT AIR PACKAGE, RIG DOWN BLOOIE LINE & RIG UP FLOW LINE, FILL MUD TANKS
	18:00 - 00:00	6.00	CIRC	6	DRLIN1	PRIME YELLOW DOG, FILL PITS, TRANSFER PREMIX TANK TO ACTIVE PITS, THAW OUT GUN LINES
	00:00 - 01:30	1.50	REAM	1	DRLIN1	BACK REAM & WORK TIGHT HOLE 1796'-1760'
	01:30 - 06:00	4.50	FISH	6	DRLIN1	ATTEMPT TO BREAK CIRCULATION & WORK STUCK PIPE @ 1751'
1/3/2008	-					DAYLIGHTS SHORT 3 HANDS & MORNING TOUR SHORT 2 HANDS
	06:00 - 11:00	5.00	FISH	6	DRLIN1	WORK STUCK PIPE, PU WT- 325K, SO WT- 50K (JARS NOT WORKING)
	11:00 - 12:00	1.00	FISH	6	DRLIN1	BREAK OUT & LAY DOWN 2 SINGLES
	12:00 - 16:00	4.00	FISH	4	DRLIN1	HOLD SAFETY MEETING, RIG UP & RUN FREE POINT WIRELINE WITH DCT WIRELINE SERVICES, FREE POINT DEPTH- 1546', LEAVING THE BIT, BIT SUB, THREE 8" DC'S, XO & THREE 6 1/2" DC'S BELOW FREE POINT.
	16:00 - 17:00	1.00	FISH	3	DRLIN1	PICK UP SURFACE JARS
1/4/2008	17:00 - 18:00	1.00	RIG	2	DRLIN1	WORK ON TOP DRIVE, UNABLE TO ROTATE QUILL, LOCK NOT WORKING PROPERLY
	18:00 - 02:00	8.00	FISH	3	DRLIN1	JAR STUCK PIPE USING SURFACE JARS, PU WT- 250K, SO WT- 25K, INSPECT DERRICK EVERY 4 HRS. MOVED STUCK BHA 1.5'
	02:00 - 03:00	1.00	FISH	3	DRLIN1	LAY DOWN FISHING JARS
	03:00 - 06:00	3.00	RIG	3	DRLIN1	BLOW DOWN MUD LINES & THAW KELLY HOSE
	06:00 - 09:30	3.50	FISH	4	DRLIN1	FREE POINT TOOLS IN HOLE - WILL BACK OFF TOP OF BOTTOM HWDP
	09:30 - 18:00	8.50	RIG	5	DRLIN1	START THAWING EQUIPMENT - YELLOW DOG AND HOSES - PREMIX TANK HOSES - STAND PIPE - KELLY HOSE - SWIVEL AND TOP DRIVE - PUMP SUCTIONS - HOPPER PUMPS - TOOL PUSHER YOUNG AND FROM A SMALL RIG. ALITTLE BIT OVERWELMED I THINK - STARTED SUGGESTING TO BREAK KELLY AT STAND PIPE GOOSENECK - FINALLY THEY STARTED AT 1600 AND HAD DOWN AT 1730, KELLY AND STAND PIPE FROZE
	18:00 - 05:00	11.00	RIG	2	DRLIN1	WENT ON UNIT TIME FOR OFFICE MARKER - HAVING TO SHOW HANDS WHAT TO DO - WE GOT ANOTHER TOOL PUSHER FROM ANOTHER RIG TO RELIEVE OTHER TOOLPUSHER - HE HAD MORE GIDDY UP AND GO AND WE HAD WRAPPED SUCTION LINES WITH STEAM HOSES AND INSULATION, GOT ONE HOPPER RUNNING AND GUN LINES CIRCULATING - STANDPIPE - KELLY - TOP DRIVE

## Operations Summary Report

Legal Well Name: TU 3-35-7-21ST2  
 Common Well Name: TU 3-35-7-21ST2  
 Event Name: DRILLING  
 Contractor Name: Unit Drilling Co.  
 Rig Name: UNIT

Start: 12/8/2007  
 Rig Release:  
 Rig Number: 109  
 Spud Date: 12/5/2007  
 End:  
 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
1/4/2008	18:00 - 05:00	11.00	RIG	2	DRLIN1	- SWIVEL THAWED OUT BY 1230 - START PUTTING EQUIPMENT BACK TOGETHER - CALLED PASON AS TWO TANK PVT PROBES NOT WORKING - ADDED 130 BBLs GEL WATER TO ACTIVE SYSTEM - REPAIRED 4" STANDPIPE VALVE AS IT WAS WASHED BACK ON QUESTAR TIME - PRESSURE TEST UNIONS WITH RIG AIR - TOP DRIVE VALVE LEAKING PRETTY BAD
	05:00 - 05:30	0.50	RIG	5	DRLIN1	START RIGGING UP WIRE LINE TOOLS AND EQUIPMENT FOR BACKOFF
	05:30 - 06:00	0.50	FISH	4	DRLIN1	BACKOFF
1/5/2008	06:00 - 09:30	3.50	FISH	4	DRLIN1	RUN IN HOLE WITH BACK OFF CHARGE - WORK TORQUE FOR ABOUT ONE HOUR AND SET CHARGE OFF - TOP OF FISH IS AT 1420' WIRELINE AND 1421 BY MY NUMBERS
	09:30 - 12:00	2.50	FISH	6	DRLIN1	WORK PIPE AFTER BACKOFF - HAD TO GO 100K OVER TO START WORKING FREE - WITH ONE STAND OUT WE HAD 5% FLOW - WORK NEXT STAND WITH OVER PULL AND PUMPS AND SHE CAME OUR WAY WITH FULL RETURNS AND CORRECT STRING WT.
	12:00 - 12:30	0.50	FISH	4	DRLIN1	RIG DOWN WIRELINE AND TIGHTEN HAMMER UNION ON STAND PIPE GOOSENECK
	12:30 - 18:00	5.50	CIRC	1	DRLIN1	CIRCULATE AND CONDITION HOLE WITH HIGH VIS SWEEPS AND WASH STANDS BACK DOWN TO TOP OF FISH - HEAVY-HEAVY SAND COMING OVER BUT CLEANING UP NICELY - TAGGED TOP OF FISH
	18:00 - 21:30	3.50	CIRC	1	DRLIN1	FINISH PUMPING SWEEPS AND CLEANING UP HOLE FOR TRIP OUT
	21:30 - 01:00	3.50	TRP	2	DRLIN1	TRIP OUT OF HOLE - PULLING RT. HEAD - LD DRILLING JARS
	01:00 - 01:30	0.50	RIG	7	DRLIN1	SAFETY MEETING ON PICKING UP TOOLS
	01:30 - 02:30	1.00	TRP	1	DRLIN1	PICK UP FISHING TOOLS
	02:30 - 05:00	2.50	TRP	2	DRLIN1	TRIP TO 150' FROM FISH AND INSTALL RT. HEAD
	05:00 - 06:00	1.00	REAM	1	DRLIN1	SAFETY WASH AND REAM LAST 150' TO BOTTOM PUMPING SWEEPS
	06:00 - 12:00	6.00	FISH	5	DRLIN1	PICK UP SINGLE AND WASH TO TOP OF FISH - COULD NOT SCREW IN, MADE ALL KINDS OF ATTEMPTS AND METHODS - STILL WOULD GO TO SIDE OF FISH - PUMP SWEEP FOR TRIP OUT
1/6/2008	12:00 - 14:00	2.00	TRP	2	DRLIN1	TRIP OUT AND LD FISHING TOOLS
	14:00 - 15:00	1.00	RIG	1	DRLIN1	SERVICE RIG AND TOP DRIVE
	15:00 - 15:30	0.50	TRP	1	DRLIN1	UNLOAD HOT SHOT TRUCK - GET PICTURES OF TOOLS AND ENTER IN PASON BEFORE TRIPPING IN
	15:30 - 16:00	0.50	TRP	1	DRLIN1	PICK UP BHA AND TORQUE UP
	16:00 - 17:00	1.00	TRP	2	DRLIN1	TRIP INTO HOLE
	17:00 - 18:00	1.00	REAM	1	DRLIN1	WASH AND REAM FROM 740 TO 835 - HIT FIRST BRIDGE AT 760'
	18:00 - 23:30	5.50	REAM	1	DRLIN1	FINISH WASH AND REAM TO BOTTOM - HARD BRIDGE FROM 815 TO 825 - CLEANED UP OK - TAG TOP OF FISH - DOUBLE CHECKED WITH SLOW RT.
	23:30 - 03:00	3.50	TRP	2	DRLIN1	TRIP SLOWLY OUT WET AND WASH AND REAM ANY TIGHT SPOT
	03:00 - 05:00	2.00	TRP	1	DRLIN1	LD DOWN BIT ASSEMBLY - CLEAN FLOOR AND MAKE UP FISHING TOOLS
	05:00 - 06:00	1.00	TRP	2	DRLIN1	TRIP IN HOLE WITH FISHING TOOLS
	06:00 - 07:00	1.00	TRP	2	DRLIN1	FINISH TRIP TO BOTTOM
1/7/2008	07:00 - 08:30	1.50	REAM	1	DRLIN1	WASH LAST THREE STANDS TO BOTTOM WITH HIGH RATE AND SWEEPS
	08:30 - 09:30	1.00	FISH	5	DRLIN1	SCREW IN TO TOP OF FISH AND PICK UP SURFACE JARS
	09:30 - 17:00	7.50	FISH	3	DRLIN1	JAR ON FISH UNTIL BRAKES FAIL - 32" OF MOVEMENT DOWN WITH 7" TRAVEL UP THAT IS STICKY - AFTER PULLING UP IT

## Operations Summary Report

Legal Well Name: TU 3-35-7-21ST2  
 Common Well Name: TU 3-35-7-21ST2  
 Event Name: DRILLING  
 Contractor Name: Unit Drilling Co.  
 Rig Name: UNIT

Start: 12/8/2007  
 Rig Release:  
 Rig Number: 109  
 Spud Date: 12/5/2007  
 End:  
 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
1/7/2008	09:30 - 17:00	7.50	FISH	3	DRLIN1	TAKES 4 HITS TO GET BACK TO BOTTOM - INSPECT DERRICK PERIODICALLY - WE HAD A 3500 PSI BURST IN SUB AND IT HAS BEEN BLOWN
	17:00 - 18:00	1.00	RIG	1	DRLIN1	SERVICE RIG WHILE LOOKING FOR PARTS - BROKEN ADJUSMENT SOCKET ON BRAKES
	18:00 - 03:00	9.00	RIG	2	DRLIN1	WAIT ON REPLACEMENT PARTS - PARTS COMING FROM UNIT 106 - PARTS INSPECTED BY SMITHS IN ROCKSPRINGS ON WAY TO US - REPAIR COOLANT LEAK FOR BRAKES
	03:00 - 04:00	1.00	RIG	6	DRLIN1	CUT DRILL LINE
	04:00 - 06:00	2.00	FISH	3	DRLIN1	CONTINUE JARRING - BOWEN SURFACE JARS HOPEFULLY SHOWING UP THIS MORNING - FROM 0400 TO 0600 WE HAVE MOVED 8 MORE INCHES DOWN
1/8/2008	06:00 - 15:00	9.00	FISH	3	DRLIN1	JAR ON FISH - JARS FAILED - INSTALL NEW SET - INSPECT DERRICK AND TOP DRIVE EVERY 1.5 HOURS - MADE 13 INCHES - ALL TOTAL 53 INCHES BEFORE PARTING STRING
	15:00 - 16:00	1.00	CIRC	1	DRLIN1	CIRCULATE HOLE CLEAN WITH TWO SWEEPS FOR TRIP OUT FOR PARTED STRING
	16:00 - 18:00	2.00	TRP	13	DRLIN1	TRIP OUT - NON ROTATE - 20K DRAG - TOP OF FISH NOW AT 1181.70 - HEAVY WT. PARTED 6.5 FEET BELOW BOX END
	18:00 - 22:00	4.00	TRP	1	DRLIN1	BREAK AND LD PARTED HW. - COULD NOT GET BENT JOINT IN MOUSE HOLE TO BREAK SINGLE ON TOP - LAYED DOWN DOUBLE ON CATWALK - LOAD FISHING TOOLS ON TRUCK - UNLOAD DIRECTIONAL EQUIPMENT
	22:00 - 01:00	3.00	TRP	1	DRLIN1	SCREW ON MULE SHOE AND TRIP FOUR STANDS DRILL PIPE IN - PICKUP 26 JOINTS DRILL PIPE - THREAD PROTECTORS FROZE ON
	01:00 - 02:00	1.00	CIRC	1	DRLIN1	CIRCULATE HOLE FOR CEMENT - HOLD SAFETY MEETING
	02:00 - 04:00	2.00	CMT	4	DRLIN1	PRESSURE TEST AND PUMP CEMENT FOR PLUG - PLUG WAS BALANCED
	04:00 - 05:00	1.00	TRP	2	DRLIN1	TRIP 8 STANDS OUT SLOWLY
	05:00 - 05:30	0.50	CIRC	1	DRLIN1	CIRCULATE PIPE AND HOLE CLEAN
	05:30 - 06:00	0.50	TRP	2	DRLIN1	FINISH TRIP OUT RACKING PIPE BACK SO WE CAN INSPECT BHA AND TOP DRIVE
1/9/2008	06:00 - 18:00	12.00	ISP	1	DRLIN1	INSPECT HWDP - XO SUBS - SAVER SUB - BIT SUB AND ALL SERVICE BREAKS FROM SWIVEL DOWN - BREAK KELLY OFF AND LOWER TOP DRIVE UNIT FOR POST JAR INSPECTION-LOAD PATH
	18:00 - 19:00	1.00	TRP	1	DRLIN1	PICK UP BENT DOUBLE HWDP AND PUT IN MOUSE HOLE UPSIDE DOWN AND BREAK APART
	19:00 - 21:00	2.00	TRP	1	DRLIN1	STRAP - ID - OD NEW BHA AND ENTER IN PASON
	21:00 - 22:00	1.00	DRL	3	DRLIN1	PICK UP MUD MOTOR AND DIRECTIONAL TOOLS - SCRIBE MOTOR
	22:00 - 00:00	2.00	TRP	1	DRLIN1	START PICKING UP BHA
	00:00 - 01:00	1.00	RIG	1	DRLIN1	SERVICE RIG AND TOP DRIVE
	01:00 - 05:00	4.00	TRP	1	DRLIN1	FINISH PICKING UP BHA
	05:00 - 05:30	0.50	DRL	4	DRLIN1	TAG CEMENT AT 725' WASH DOWN TO 830' - NO BIT WT. WITH PUMPS ON - PUMPS OFF WILL STACK OFF TO 25K AND IT BLEEDS OFF
	05:30 - 06:00	0.50	CIRC	1	DRLIN1	CIRCULATE AND CLEAN HOLE WHILE WAITING ON ORDERS
	06:00 - 07:00	1.00	CIRC	1	DRLIN1	CIRCULATE AND CONDITION MUD
1/10/2008	07:00 - 12:00	5.00	DRL	5	DRLIN1	WASH PLUG DOWN TO 1100' - CEMENT ALL SOFT
	12:00 - 14:00	2.00	CIRC	1	DRLIN1	CIRCULATE AND SWEEP HOLE CLEAN FOR SETTING PLUG

## Operations Summary Report

Legal Well Name: TU 3-35-7-21ST2

Common Well Name: TU 3-35-7-21ST2

Event Name: DRILLING

Contractor Name: Unit Drilling Co.

Rig Name: UNIT

Start: 12/8/2007

Spud Date: 12/5/2007

Rig Release:

End:

Rig Number: 109

Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
1/10/2008	14:00 - 15:00	1.00	TRP	13	DRLIN1	PUMP PILL AND TRIP OUT
	15:00 - 16:00	1.00	RIG	1	DRLIN1	SERVICE RIG AND TOP DRIVE
	16:00 - 17:00	1.00	TRP	2	DRLIN1	TRIP CEMENTING STRING IN TO HOLE - SLM -
	17:00 - 18:00	1.00	CIRC	1	DRLIN1	CIRCULATE AND CONDITION MUD WHILE WAITING FOR NEW CEMENT AND TRUCKS TO SHOW - TEST CEMENT WATER BY NEWPARK AND HALLIBURTON (BOTH OK) - HEAT WATER TO 65 DEGREES -
	18:00 - 01:30	7.50	WOT	4	DRLIN1	CIRCULATE AND CONDITION WHILE WAITING FOR EQUIPMENT TO SHOW UP - CEMENT BIN SHOWED UP AT 1730 - CEMENT BULK TRUCKS SHOWED UP AROUND 2230 - UNLOAD - RIG TRUCKS UP
	01:30 - 02:00	0.50	RIG	7	DRLIN1	HOLD SAFETY MEETING
	02:00 - 03:00	1.00	CMT	4	DRLIN1	SET CEMENT PLUG - WORKED WELL - BALANCED
	03:00 - 03:30	0.50	TRP	2	DRLIN1	TRIP SLOWLY OUT TO SHOE
	03:30 - 04:00	0.50	CIRC	1	DRLIN1	CIRCULATE PIPE AND HOLE CLEAN
	04:00 - 04:30	0.50	TRP	2	DRLIN1	FINISH TRIP OUT AND LD MULE SHOE
	04:30 - 06:00	1.50	WOT	1	DRLIN1	WAIT ON CEMENT - WET AND DRY SAMPLES PUT IN OFFICE
	06:00 - 12:00	6.00	WOT	1	DRLIN1	WAIT ON CEMENT
	12:00 - 13:30	1.50	TRP	2	DRLIN1	TRIP DIRECTIONAL TOOLS IN TO TOP OF CEMENT - TAGGED AT 587'
	13:30 - 15:30	2.00	CIRC	1	DRLIN1	WASH CEMENT DOWN TO 649' ALL SOFT - 12 HOURS ON CEMENT
1/11/2008	15:30 - 18:00	2.50	WOT	1	DRLIN1	WAIT ON CEMENT
	18:00 - 21:00	3.00	DRL	4	DRLIN1	WITH 18 HOURS DRILL CEMENT FROM 649' TO 681' - CEMENT SOFT
	21:00 - 22:00	1.00	CIRC	1	DRLIN1	CIRCULATE HOLE CLEAN WITH SWEEPS
	22:00 - 03:00	5.00	WOT	1	DRLIN1	WOC
	03:00 - 04:00	1.00	DRL	4	DRLIN1	WITH 24 HOURS ON CEMENT WE DRILLED CEMENT FROM 681 TO 747 - 740 TO 747 PICKED UP BIT WT - TURN PUMPS AND ROTARY OFF - STACK 20K ON CEMENT AND DOES NOT BLEED OFF - BUT IT DOES DRILL UP WITH 2K ON BIT - WET SAMPLE IN OFFICE DID NOT GET HARD UNTIL 16 HOURS LATER -
	04:00 - 05:30	1.50	CIRC	1	DRLIN1	CIRC. HOLE CLEAN WITH SWEEPS
	05:30 - 06:00	0.50	WOT	1	DRLIN1	WOC AND ORDERS - AT 0900 WE VERY WELL SHOULD BE DOING DIRECTIONAL WORK
	06:00 - 09:00	3.00	WOT	1	DRLIN1	WAIT ON CEMENT
	09:00 - 10:00	1.00	DRL	5	DRLIN1	DRILL CEMENT TO 762' - CEMENT HARD ENOUGH AT THAT POINT TO START BUILDING TROUGH
	10:00 - 11:00	1.00	DRL	2	DRLIN1	BUILD TROUGH - AZ WAS 263 SO WE WENT IN AT 90
	11:00 - 18:00	7.00	DRL	2	DRLIN1	TIME DRILL FROM 752' TO 761'
	18:00 - 02:00	8.00	DRL	2	DRLIN1	TIME DRILL 761 TO 792 = 792' HAD 70% FORMATION
	02:00 - 04:00	2.00	DRL	1	DRLIN1	DRILL FROM 792 TO 830 - 830' SAMPLE 80% FORMATION
	04:00 - 06:00	2.00	DRL	2	DRLIN1	SLIDE FROM 830 TO 855
1/13/2008	06:00 - 07:30	1.50	DRL	1	DRLIN1	RT. FROM 855 TO 896 - CHECK SHOT - -40' = 853 = 1.5 - 82.1
	07:30 - 08:30	1.00	DRL	2	DRLIN1	SLIDE FROM 896 TO 918 - SURVEY
	08:30 - 10:30	2.00	DRL	1	DRLIN1	RT. FROM 918 TO 935 - CHECK SHOT
	10:30 - 11:30	1.00	RIG	1	DRLIN1	SERVICE RIG AND TOP DRIVE
	11:30 - 12:00	0.50	DRL	1	DRLIN1	RT. FROM 935 TO 955 - SURVEY - -40'=915 = 2.0 = 69.4
	12:00 - 13:00	1.00	DRL	2	DRLIN1	SLIDE FROM 955 TO 967
	13:00 - 18:00	5.00	DRL	1	DRLIN1	RT. FROM 967 TO 1071 -40=1033=2.9=68.1
	18:00 - 19:30	1.50	DRL	1	DRLIN1	RT. FROM 1071 TO 1108 CHECK SHOT
	19:30 - 20:30	1.00	DRL	2	DRLIN1	SLIDE FROM 1108 TO 1118
	20:30 - 06:00	9.50	DRL	1	DRLIN1	DRILL FROM 1118 TO 1340 - 3 SURVEYS - 2 CHECK SHOTS - LAST = SURVEY DEPTH = 1223 - 4.0 - 60.8 - AS OF NOW WE DO NOT HAVE ANY INTERFERENCE FROM OTHER TOOLS - TOP OF

## Operations Summary Report

Legal Well Name: TU 3-35-7-21ST2

Common Well Name: TU 3-35-7-21ST2

Event Name: DRILLING

Contractor Name: Unit Drilling Co.

Rig Name: UNIT

Start: 12/8/2007

Rig Release:

Rig Number: 109

Spud Date: 12/5/2007

End:

Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
1/13/2008	20:30 - 06:00	9.50	DRL	1	DRLIN1	LAST FISH = 1181 - BOTTOM OF OLD BIT = 1747 WITH A HOLE DEPTH OF 1822
1/14/2008	06:00 - 08:00	2.00	DRL	1	DRLIN1	DRILL FROM 1340 TO 1388
	08:00 - 08:30	0.50	DRL	2	DRLIN1	SLIDE FROM 1388 TO 1403
	08:30 - 10:00	1.50	DRL	1	DRLIN1	DRILL FROM 1403 TO 1451
	10:00 - 11:00	1.00	DRL	2	DRLIN1	SLIDE FROM 1451 TO 1469
	11:00 - 12:30	1.50	DRL	1	DRLIN1	DRILL FROM 1469 TO 1513
	12:30 - 13:30	1.00	DRL	2	DRLIN1	SLIDE FROM 1513 TO 1529
	13:30 - 14:00	0.50	DRL	1	DRLIN1	DRILL FROM 1529 TO 1544
	14:00 - 15:00	1.00	RIG	1	DRLIN1	SERVICE RIG AND TOP DRIVE
	15:00 - 17:00	2.00	DRL	1	DRLIN1	DRILL FROM 1544 TO 1575 - LOST 24 BBLS AT 1550'
	17:00 - 17:30	0.50	DRL	2	DRLIN1	DRILL FROM 1575 TO 1592
	17:30 - 18:00	0.50	DRL	1	DRLIN1	DRILL FROM 1592 TO 1605
	18:00 - 23:00	5.00	DRL	1	DRLIN1	DRILL FROM 1605 TO 1696
	23:00 - 00:00	1.00	DRL	2	DRLIN1	SLIDE FROM 1696 TO 1716
	00:00 - 05:00	5.00	DRL	1	DRLIN1	DRILL FROM 1716 TO 1822
1/15/2008	05:00 - 06:00	1.00	CIRC	1	DRLIN1	CIRC. AND SWEEP HOLE FOR TRIP OUT - SURVEY FOR LAST TIME ON MWD - HOLE SEEPING 18 BBLS PER HOUR
	06:00 - 06:30	0.50	CIRC	1	DRLIN1	CIRCULATE AND DROP TRIP SLUG
	06:30 - 10:00	3.50	TRP	2	DRLIN1	TRIP OUT - COUPLE TIGHT SPOTS BUT REAMED OUT EASY
	10:00 - 12:00	2.00	TRP	1	DRLIN1	DRAIN MOTOR - LD BIT, MOTOR, NON-MAG AND UBHO
	12:00 - 14:00	2.00	TRP	1	DRLIN1	PUT NEW BHA ON PIPE RACKS - STRAP AND ENTER IN PASON - LOAD ALL DIRECTIONAL EQUIPMENT ON TRUCKS
	14:00 - 15:00	1.00	RIG	1	DRLIN1	SERVICE RIG AND TOP DRIVE
	15:00 - 17:00	2.00	TRP	1	DRLIN1	PICK UP NEW BHA TO SHOE - THAW FLOW LINE SENSOR
	17:00 - 18:00	1.00	RIG	6	DRLIN1	START CUTTING DRILL LINE
	18:00 - 19:30	1.50	RIG	6	DRLIN1	FINISH CUTTING DRILL LINE AND REPAIR AIR VALVE FOR MAKEUP
	19:30 - 21:00	1.50	TRP	2	DRLIN1	TRIP IN TO HOLE SLOWLY
	21:00 - 21:30	0.50	TRP	1	DRLIN1	INSTALL RT. HEAD
	21:30 - 22:00	0.50	REAM	1	DRLIN1	WASH 90' WITH NO FILL
	22:00 - 06:00	8.00	DRL	1	DRLIN1	DRILL FROM 1822 TO 2125 - 10 BBL SWEEPS EVERY HOUR DOING GREAT - NO SEEPAGE AT THIS TIME
1/16/2008	06:00 - 08:00	2.00	DRL	1	DRLIN1	DRILL FROM 2125 TO 2169
	08:00 - 09:00	1.00	RIG	1	DRLIN1	SERVICE RIG AND TOP DRIVE
	09:00 - 18:00	9.00	DRL	1	DRLIN1	DRILL FROM 2169 TO 2465 - SWEEPING HOLE EVERY HOUR
	18:00 - 06:00	12.00	DRL	1	DRLIN1	DRILL FROM 2465 TO 2800 - SWEEPING HOLE EVERY HOUR - DUMPING SANDTRAP EVERY 8 HOURS - NO LOSSES
1/17/2008	06:00 - 12:00	6.00	DRL	1	DRLIN1	DRILL F/ 2800'-3010', WOB-5-10K, RPM- 158 COMBINED, GPM- 642, MW- 9.1, VIS- 56, PUMPING HI VIS SWEEPS WITH 10% LCM HOURLY, HOLE SEEPING 12-15 BBLS/HR
	12:00 - 17:00	5.00	CIRC	6	DRLIN1	LOST PARTIAL RETURNS, BYPASS SHAKERS, BUILD VOLUME & RAISE LCM TO 6% IN ACTIVE PITS, TOTAL LOSSES- 410 BBLS
	17:00 - 02:30	9.50	DRL	1	DRLIN1	DRILL F/ 3010'-3219", WOB- 5-8K, RPM- 155 COMBINED, GPM- 600, MW- 9, VIS- 41, LCM- 10%, NO LOSSES
	02:30 - 04:30	2.00	CIRC	1	DRLIN1	CIRC. WITH #2 PUMP & CLEAN OUT #1 PUMP SUCTION LINE
	04:30 - 06:00	1.50	DRL	1	DRLIN1	DRILL F/ 3219'-3240', WOB- 5-10K, RPM- 150 COMBINED, GPM- 600, MW- 8.9, VIS- 46, LCM- 10%, NO LOSSES
1/18/2008	06:00 - 08:00	2.00	DRL	1	DRLIN1	DRILL F/ 3240'-3288', WOB- 10K, RPM- 150 COMBINED, GPM- 600, MW- 8.9, VIS- 46, LCM- 10%, SHAKERS BYPASSED, NO LOSSES
	08:00 - 09:30	1.50	CIRC	1	DRLIN1	CIRC. WITH #1 PUMP & CLEAN OUT #2 PUMP SUCTION LINE & REMOVE SCREENS FROM SUCTION LINES.
	09:30 - 02:00	16.50	DRL	1	DRLIN1	DRILL F/ 3288'-3509', WOB- 10-12K, RPM- 155 COMBINED, GPM-

## Operations Summary Report

Legal Well Name: TU 3-35-7-21ST2  
 Common Well Name: TU 3-35-7-21ST2  
 Event Name: DRILLING  
 Contractor Name: Unit Drilling Co.  
 Rig Name: UNIT

Start: 12/8/2007  
 Rig Release:  
 Rig Number: 109  
 Spud Date: 12/5/2007  
 End:  
 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
1/18/2008	09:30 - 02:00	16.50	DRL	1	DRLIN1	642, MW- 9.1, VIS- 46, LCM- 10%, SHAKERS BYPASSED, NO LOSSES
	02:00 - 03:00	1.00	RIG	1	DRLIN1	LUBRICATE RIG & TOP DRIVE, FUNCTION ANNULAR & COM
	03:00 - 06:00	3.00	DRL	1	DRLIN1	DRILL F/ 3509'-3557', DRLG WITH SAME PARAMETERS, MW & VIS, LCM- 11%, SHAKERS BYPASSED, NO LOSSES
1/19/2008	06:00 - 12:00	6.00	DRL	1	DRLIN1	DRILL F/ 3557'-3633', WOB- 12-18K, RPM- 155 COMBINED, GPM- 642, MW- 9.1, VIS- 42, LCM- 10%, SHAKERS BYPASSED, NO LOSSES
	12:00 - 13:00	1.00	RIG	1	DRLIN1	LUBRICATE RIG & TOP DRIVE, FUNCTION TOP PIPE RAMS & COM
	13:00 - 06:00	17.00	DRL	1	DRLIN1	DRILL F/ 3633'-3817', WOB- 18-24K, RPM- 150 COMBINED, GPM- 600, MW- 9+, VIS- 44, LOST PARTIAL RETURNS @ 3680', RAISED LCM TO 13%, REGAINED FULL RETURNS, TOTAL LOSSES- 180 BBLs
1/20/2008	06:00 - 07:30	1.50	DRL	1	DRLIN1	DRILL F/ 3817'-3823', WOB- 20-24K, RPM- 150 COMBINED, GPM- 600, MW- 9.1, VIS- 44, LCM- 13%, NO LOSSES
	07:30 - 08:00	0.50	CIRC	1	DRLIN1	CIRC & MIX TRIP SLUG
	08:00 - 08:30	0.50	SUR	1	DRLIN1	DROP SURVEY & PUMP TRIP SLUG
	08:30 - 12:30	4.00	TRP	10	DRLIN1	TRIP OUT F/ BIT #3, BLOW DOWN STANDPIPE & PULLED ROT. HEAD, FUNCTIONED COM
	12:30 - 13:30	1.00	TRP	1	DRLIN1	RETRIEVE SURVEY TOOL, BREAK BIT & LAY DOWN MUD MOTOR, FUNCTIONED BLIND RAMS
	13:30 - 15:30	2.00	RIG	1	DRLIN1	LUBRICATE RIG & TOP DRIVE, CHANGE OIL IN TOP DRIVE MOTOR & ROTATE CERAMIC LINERS IN BOTH PUMPS
	15:30 - 16:30	1.00	RIG	3	DRLIN1	BLOW OUT CHKE MANIFOLD & GAS BUSTER WITH AIR
	16:30 - 17:30	1.00	TRP	1	DRLIN1	PICK UP & SURFACE TEST MUD MOTOR
	17:30 - 20:30	3.00	TRP	10	DRLIN1	TRIP IN, FILL PIPE & BREAK CIRC. EVERY 1000', INSTALLED ROT. HEAD
	20:30 - 21:30	1.00	REAM	1	DRLIN1	WASH 110' TO BOTTOM, 4' OF FILL
1/21/2008	21:30 - 06:00	8.50	DRL	1	DRLIN1	DRILL F/ 3823'-3932', WOB- 10-14K, RPM- 150-155 COMBINED, GPM- 600-642, MW- 9.2, VIS- 42, LCM- 14%, SHAKERS BYPASSED, NO LOSSES
	06:00 - 11:00	5.00	DRL	1	DRLIN1	DRILL F/ 3932'-4004', WOB- 15K, RPM- 155 COMBINED, GPM- 642, MW- 9.2, VIS- 45, LCM- 15%, NO LOSSES, SHAKERS BYPASSED
	11:00 - 12:00	1.00	RIG	1	DRLIN1	LUBRICATE RIG & TOP DRIVE, FUNCTION ANNULAR & COM
1/22/2008	12:00 - 06:00	18.00	DRL	1	DRLIN1	DRILL F/ 4004'-4238', WOB- 8-15K, RPM- 150-160 COMBINED, GPM- 600-685 (BIT STARTED STICK SLIPPING @ 4145') MW- 9.1, VIS- 46, LCM- 15% (HOLE SEEPING 6 BBLs/HR F/ 4060'-4140') LOST 48 BBLs
	06:00 - 14:00	8.00	DRL	1	DRLIN1	DRILL F/ 4238'-4346', WOB- 10-15K, RPM- 160-180 COMBINED (INCREASED RPM TO 80 & 80 SPM ON EACH PUMP TO STOP STICK SLIP), GPM- 642-685, MW- 9.1, VIS- 42, LCM- 14%, NO LOSSES
	14:00 - 15:00	1.00	RIG	1	DRLIN1	LUBRICATE RIG & TOP DRIVE, FUNCTION SUPER CHOKE & COM
	15:00 - 20:00	5.00	DRL	1	DRLIN1	DRILL F/ 4346'-4390', DRLG WITH SAME PARAMETERS, MW & VIS, NO LOSSES
	20:00 - 21:00	1.00	SUR	1	DRLIN1	DROP SURVEY, PUMP TRIP SLUG & BLOW DOWN STANDPIPE
	21:00 - 00:00	3.00	TRP	10	DRLIN1	TRIP OUT F/ BIT #5, LAYED DOWN 1 JT, FUNCTIONED COM, HOLE FILL 21 BBLs OVER CALCULATED
	00:00 - 01:00	1.00	TRP	1	DRLIN1	RETRIEVE SURVEY TOOL, BREAK BIT & LAY DOWN MUD MOTOR
	01:00 - 02:00	1.00	TRP	1	DRLIN1	PICK UP & SURFACE TEST MUD MOTOR
	02:00 - 06:00	4.00	TRP	10	DRLIN1	TRIP IN, BREAK CIRC. EVERY 1000', CIRC. BOTTOMS UP @ 2200' & 3850'
	06:00 - 07:00	1.00	REAM	1	DRLIN1	WASH 70' TO BOTTOM WITH 5' OF FILL

## Operations Summary Report

Legal Well Name: TU 3-35-7-21ST2  
 Common Well Name: TU 3-35-7-21ST2  
 Event Name: DRILLING  
 Contractor Name: Unit Drilling Co.  
 Rig Name: UNIT

Start: 12/8/2007  
 Rig Release:  
 Rig Number: 109  
 Spud Date: 12/5/2007  
 End:  
 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
1/23/2008	07:00 - 11:30	4.50	DRL	1	DRLIN1	DRILL F/ 4390'-4469' ,WOB- 5-12K, RPM- 170 COMBINED, GPM- 685, MW- 9.1, VIS- 48, LCM- 15%, LOST 25 BBLS @ 4420', NO LOSSES SINCE THEN.
	11:30 - 12:30	1.00	RIG	1	DRLIN1	LUBRICATE RIG & TOP DRIVE, FUNCTION BOTTOM PIPE RAMS & COM
	12:30 - 06:00	17.50	DRL	1	DRLIN1	DRILL F/ 4469'-4634' , WOB- 12-15K, RPM- 170-190 COMBINED, GPM- 685, MW- 9.2, VIS- 47, LCM- 15%, NO LOSSES (STICK SLIPPING STARTED @ 4600', BIT BALLING SWEEPS ARE NOT EFFECTIVE)
1/24/2008	06:00 - 13:00	7.00	DRL	1	DRLIN1	DRILL F/ 4634'-4687' , WOB- 15-22K, RPM- 170-190 COMBINED, GPM- 685, MW- 9.3, VIS- 46, LCM- 15%, NO LOSSES
	13:00 - 14:00	1.00	RIG	1	DRLIN1	LUBRICATE RIG & TOP DRIVE, FUNCTION HCR & COM
	14:00 - 14:30	0.50	CIRC	1	DRLIN1	CHECK F/ FLOW & PUMP TRIP SLUG
	14:30 - 18:00	3.50	TRP	10	DRLIN1	TRIP OUT F/ BIT #6, PULLED ROT. HEAD RUBBER
	18:00 - 19:00	1.00	TRP	1	DRLIN1	TRIP OUT BHA WET, HOLE FILL 8 BBLS OVER CALCULATED
	19:00 - 19:30	0.50	TRP	1	DRLIN1	DRAIN MUD MOTOR, BREAK BIT & MAKE UP NEW BIT, FUNCTIONED BLIND RAMS
	19:30 - 23:30	4.00	TRP	10	DRLIN1	TRIP IN, BREAK CIRC. EVERY 1000'
	23:30 - 00:00	0.50	REAM	1	DRLIN1	WASH 60' TO BOTTOM WITH 7' OF FILL
	00:00 - 06:00	6.00	DRL	1	DRLIN1	DRILL F/ 4687'-4760' , WOB- 8-12K, RPM- 150 COMBINED, GPM- 685, LCM- 15%, NO LOSSES
1/25/2008	06:00 - 08:30	2.50	DRL	1	DRLIN1	DRILL F/ 4670'-4802' , WOB- 14K, RPM- 150 COMBINED, GPM- 685, MW- 9.2, VIS- 45, LCM- 14%, NO LOSSES, STARTED RUNNING ONE CENTRIFUGE TO SLOWLY STRIP OUT LCM
	08:30 - 11:30	3.00	CIRC	1	DRLIN1	CIRC. WITH #1 PUMP & WORK ON #2 PUMP (SUCTION VALVES WERE PLUGGED WITH LCM)
	11:30 - 14:30	3.00	DRL	1	DRLIN1	DRILL F/ 4802'-4846' , DRLG WITH SAME PARAMETERS, MW & VIS, LCM- 12%, NO LOSSES
	14:30 - 15:30	1.00	RIG	1	DRLIN1	LUBRICATE RIG & TOP DRIVE, FUNCTION TOP PIPE RAMS & COM
	15:30 - 06:00	14.50	DRL	1	DRLIN1	DRILL F/ 4846'-5053' , WOB- 10-14K, RPM- 155 COMBINED, GPM- 685, MW- 9.2, VIS- 43, LCM- 10%, SHAKING OUT LCM SLOWLY USING 1 SHAKER, NO LOSSES
	06:00 - 16:30	10.50	DRL	1	DRLIN1	DRILL F/ 5053'-5153' , WOB- 10-15K, RPM- 155 COMBINED, GPM- 685, MW- 9.2, VIS- 42, LCM- 8%, 1 SHAKER BYPASSED, SHAKING OUT LCM SLOWLY, NO LOSSES
1/26/2008	16:30 - 17:30	1.00	RIG	1	DRLIN1	LUBRICATE RIG & TOP DRIVE, FUNCTION LOWER PIPE RAMS & COM
	17:30 - 18:30	1.00	CIRC	1	DRLIN1	CIRC. WITH #1 PUMP & WORK ON #2 PUMP (TRASH UNDER SUCTION VALVES)
	18:30 - 04:00	9.50	DRL	1	DRLIN1	DRILL F/ 5153'-5225' , WOB- 6-15K, RPM- 155-180 COMBINED, STICK SLIPPING STARTED @ 5200', PUMPING BIT BALLING SWEEPS WITH NO EFFECT, MW- 9.2, VIS- 42, LCM- 6%, SHAKING OUT LCM SLOWLY, NO LOSSES
	04:00 - 05:00	1.00	CIRC	1	DRLIN1	MIX TRIP SLUG
	05:00 - 05:30	0.50	SUR	1	DRLIN1	DROP SURVEY, PUMP TRIP SLUG & BLOW DOWN STANDPIPE
	05:30 - 06:00	0.50	TRP	10	DRLIN1	TRIP OUT F/ BIT #7
	06:00 - 10:00	4.00	TRP	10	DRLIN1	TRIP OUT, FUNCTIONED COM, HOLE FILL 26 BBLS OVER CALCULATED
	10:00 - 11:30	1.50	TRP	1	DRLIN1	BREAK BIT & LAY DOWN MUD MOTOR, FUNCTIONED BLIND RAMS (ROTARY TABLE WOULD NOT STAY LOCKED TO BREAK BIT, LOCK NEEDS TO BE REPAIRED)
	11:30 - 12:30	1.00	LOC	7	DRLIN1	CLEAN SHAKER TANK
1/27/2008	12:30 - 13:30	1.00	TRP	1	DRLIN1	PICK UP & SURFACE TEST NEW MUD MOTOR

## Operations Summary Report

Legal Well Name: TU 3-35-7-21ST2  
 Common Well Name: TU 3-35-7-21ST2  
 Event Name: DRILLING  
 Contractor Name: Unit Drilling Co.  
 Rig Name: UNIT

Spud Date: 12/5/2007  
 Start: 12/8/2007  
 End:  
 Rig Release:  
 Group:  
 Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
1/27/2008	13:30 - 15:00	1.50	TRP	10	DRLIN1	MAKE UP BIT, TRIP IN BHA & BREAK CIRC.
	15:00 - 16:30	1.50	RIG	6	DRLIN1	CUT DRLG LINE & RESET COM
	16:30 - 17:30	1.00	RIG	1	DRLIN1	LUBRICATE RIG & TOP DRIVE
	17:30 - 20:30	3.00	TRP	10	DRLIN1	TRIP IN, BREAK CIRC. EVERY 1000'
	20:30 - 21:00	0.50	REAM	1	DRLIN1	WASH 35' TO BOTTOM, NO FILL
	21:00 - 06:00	9.00	DRL	1	DRLIN1	DRILL F/ 5225'-5339', WOB- 8-14K, RPM- 165 COMBINED, GPM- 685, MW- 9.2, VIS- 43, LCM- 6%, SEEPING 2 BBLS/HR
1/28/2008	06:00 - 12:30	6.50	DRL	1	DRLIN1	DRILL F/ 5339'-5399', WOB- 10-13K, RPM- 165 COMBINED, GPM- 685, MW- 9.2, VIS- 42, LCM- 5%, SHAKING OUT LCM SLOWLY, SEEPING 2 BBLS/HR
	12:30 - 13:30	1.00	RIG	1	DRLIN1	LUBRICATE RIG & TOP DRIVE, FUNCTION TOP PIPE RAMS & COM
	13:30 - 06:00	16.50	DRL	1	DRLIN1	DRILL F/ 5399'-5643', WOB- 8-13K, RPM- 165 COMBINED, GPM- 685, MW- 9.2, VIS- 42, LCM- 5%, SEEPING 2-3 BBLS/HR, DRLG WITH ONE SHAKER BYPASSED
1/29/2008	06:00 - 08:30	2.50	DRL	1	DRLIN1	DRILL F/ 5643'-5675', WOB- 8-13K, RPM- 165 COMBINED, GPM- 685, MW- 9.2, VIS- 42, LCM- 5%, BIT BALLING STARTED @ 5660', PUMPING 15 BBL BIT BALLING SWEEPS AS NEEDED, SHAKING LCM OUT SLOWLY, SEEPING 1-2 BBLS/HR
	08:30 - 09:30	1.00	RIG	1	DRLIN1	LUBRICATE RIG & TOP DRIVE, FUNCTION ANNULAR & COM
	09:30 - 06:00	20.50	DRL	1	DRLIN1	DRILL F/ 5675'-5875', WOB- 8-15K, RPM- 165-185, GPM- 685-728, MW- 9.2, VIS- 43, LCM- 4%, PUMPING 15 BBL BIT BALLING SWEEPS AS NEEDED. SHAKING OUT LCM SLOWLY, SEEPING 1-2 BBLS/HR
1/30/2008	06:00 - 11:30	5.50	DRL	1	DRLIN1	DRILL F/ 5872'-5921', WOB- 8-15K, RPM- 170 COMBINED, GPM- 728, MW- 9.2, VIS- 43, LCM- 4%, SHAKERS PARTIALLY BYPASSED, SEEPING 1-2 BBLS/HR
	11:30 - 12:30	1.00	RIG	1	DRLIN1	LUBRICATE RIG & TOP DRIVE, FUNCTION LOWER PIPE RAMS & COM
	12:30 - 14:30	2.00	DRL	1	DRLIN1	DRILL F/ 5921'-5941', DRLG WITH SAME PARAMETERS, MW & VIS, LCM- 3%, SEEPING 1-2 BBLS/HR
	14:30 - 15:00	0.50	SUR	1	DRLIN1	DROP SURVEY & CHECK F/ FLOW
	15:00 - 20:00	5.00	TRP	10	DRLIN1	PUMP TRIP SLUG & TRIP OUT (TIGHT HOLE F/ 4625'-4469') HOLE FILL 30 BBLS OVER CALCULATED
	20:00 - 20:30	0.50	TRP	1	DRLIN1	BREAK BIT & LAY DOWN MUD MOTOR, FUNCTIONED BLIND RAMS
	20:30 - 21:30	1.00	TRP	1	DRLIN1	PICK UP & SURFACE TEST MUD MOTOR
	21:30 - 02:30	5.00	TRP	10	DRLIN1	TRIP IN SLOWLY, BREAK CIRC. EVERY 1000', INSTALLED ROT. HEAD
	02:30 - 03:00	0.50	REAM	1	DRLIN1	REAM THRU TIGHT SPOT F/ 4560'-4600'
	03:00 - 04:00	1.00	TRP	10	DRLIN1	TRIP IN SLOWLY
	04:00 - 04:30	0.50	REAM	1	DRLIN1	WASH 65' TO BOTTOM WITH NO FILL
	04:30 - 06:00	1.50	DRL	1	DRLIN1	DRILL F/ 5941'-5960', WOB- 8-10K, RPM- 158 COMBINED, GPM- 642, MW- 9.1, VIS- 48, LCM- 2%, SHAKERS PARTIALLY BYPASSED, SEEPING 1-2 BBLS/HR
1/31/2008	06:00 - 02:00	20.00	DRL	1	DRLIN1	DRILL F/ 5960'-6108', WOB- 8-12K, RPM- 165 COMBINED, GPM- 685, MW- 9.1, VIS- 43, LCM- 3%, SEEPING 2-3 BBLS/HR, SHAKERS PARTIALLY BYPASSED, PUMPING 10 BBL BIT BALLING & LCM SWEEPS HOURLY.
	02:00 - 03:00	1.00	RIG	1	DRLIN1	LUBRICATE RIG & TOP DRIVE, FUNCTION ANNULAR & COM
	03:00 - 06:00	3.00	DRL	1	DRLIN1	DRILL F/ 6108'-6125', DRLG WITH SAME PARAMETERS, MW & VIS, PUMPING 10 BBL BIT BALLING & LCM SWEEPS HOURLY, SEEPING 2-3 BBLS/HR
2/1/2008	06:00 - 12:00	6.00	DRL	1	DRLIN1	DRILL F/ 6125'-6167', WOB- 12-16K, RPM- 165 COMBINED, GPM- 685, MW- 9, VIS- 43, LCM- 4%, SHAKERS PARTIALLY BYPASSED,



## Operations Summary Report

Legal Well Name: TU 3-35-7-21ST2

Common Well Name: TU 3-35-7-21ST2

Event Name: DRILLING

Contractor Name: Unit Drilling Co.

Rig Name: UNIT

Start: 12/8/2007

Rig Release:

Rig Number: 109

Spud Date: 12/5/2007

End:

Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
2/1/2008	06:00 - 12:00	6.00	DRL	1	DRLIN1	SEEPING 2-3 BBLs/HR, PUMPING 10 BBL LCM SWEEPS HOURLY
	12:00 - 13:00	1.00	RIG	1	DRLIN1	LUBRICATE RIG & TOP DRIVE, FUNCTION HCR VALVE & COM
	13:00 - 18:00	5.00	DRL	1	DRLIN1	DRILL F/ 6167'-6195', ADJUSTED WOB, RPM, & GPM TO TRY
						IMPROVE ROP, BIT SLOWED TO 3'/HR
	18:00 - 19:00	1.00	CIRC	1	DRLIN1	CIRC. & MIX TRIP SLUG
	19:00 - 19:30	0.50	CIRC	1	DRLIN1	PUMP TRIP SLUG & BLOW DOWN STANDPIPE
	19:30 - 00:00	4.50	TRP	10	DRLIN1	TRIP OUT F/ BIT #9, (TIGHT HOLE F/ 5985'-5901'), FUNCTIONED
						COM & PULLED ROT. HEAD, HOLE FILL 24 BBLs OVER
						CALCULATED
	00:00 - 00:30	0.50	TRP	1	DRLIN1	BREAK BIT & LAY DOWN MUD MOTOR, FUNCTIONED BLIND RAMS
2/2/2008	00:30 - 01:30	1.00	TRP	1	DRLIN1	PICK UP & SURFACE TEST MUD MOTOR
	01:30 - 06:00	4.50	TRP	10	DRLIN1	TRIP IN SLOWLY, BREAK CIRC. EVERY 1000'
	06:00 - 07:00	1.00	TRP	2	DRLIN1	TRIP IN TO HOLE - ADJUSTED AND FUNCTIONED C.O.M. - FILLED
						AT 5311
	07:00 - 08:00	1.00	REAM	1	DRLIN1	SAFETY WASH AND REAM 30' TO BOTTOM - 6' OF SOFT FILL
	08:00 - 14:30	6.50	DRL	1	DRLIN1	DRILL FROM 6195 TO 6231
	14:30 - 15:00	0.50	BOP	1	DRLIN1	CHANGE OUT SUPER CHOKE PANEL
	15:00 - 18:00	3.00	DRL	1	DRLIN1	DRILL FROM 6231 TO 6240
	18:00 - 23:00	5.00	DRL	1	DRLIN1	DRILL FROM 6240 TO 6257 - FINAL BIT WT. = 34K - WILL NOT DRILL
						-100% HARD SHALE
2/3/2008	23:00 - 00:00	1.00	CIRC	1	DRLIN1	CIRCULATE HOLE AND PUMP TRIP SLUG
	00:00 - 04:30	4.50	TRP	10	DRLIN1	BLOW DOWN KELLY AND TRIP OUT - COUPLE SMALL TIGHT
						SPOTS BETWEEN 5872 TO 5850 - PULLED SLOW AND WENT THRU
	04:30 - 05:30	1.00	TRP	1	DRLIN1	DRAIN MUD MOTOR - CHANGE OUT BITS - CLEAN FLOOR FOR
						TRIP IN
	05:30 - 06:00	0.50	TRP	2	DRLIN1	START TRIPPING TO SHOE FOR CUTTING DRILL LINE - REFILL
						TRIP TANK
	06:00 - 06:30	0.50	TRP	2	DRLIN1	TRIP BHA TO SHOE
	06:30 - 07:30	1.00	RIG	6	DRLIN1	CUT DRILL LINE
	07:30 - 11:00	3.50	TRP	2	DRLIN1	TRIP TO ONE STAND FROM BOTTOM
2/4/2008	11:00 - 11:30	0.50	BOP	1	DRLIN1	INSTALL RT. HEAD
	11:30 - 12:00	0.50	REAM	1	DRLIN1	SAFETY WASH AND REAM 40' TO BOTTOM - NO FILL
	12:00 - 17:30	5.50	DRL	1	DRLIN1	DRILL FROM 6257 TO 6295
	17:30 - 18:00	0.50	RIG	1	DRLIN1	SERVICE RIG
	18:00 - 06:00	12.00	DRL	1	DRLIN1	DRILL FROM 6295 TO 6375 - SEEPING 4 BBLs PER HOUR WITH 3%
						LCM - TO KEEP BIT FROM BOUNCING WE ARE RUNNING 38K ON
						BIT WITH 727 GALLONS - SURFACE RPM = 38
	06:00 - 18:00	12.00	DRL	1	DRLIN1	DRILL FROM 6375 TO 6468
	18:00 - 22:30	4.50	DRL	1	DRLIN1	DRILL FROM 6468 TO 6486 - BIT DIED AFTER CONNECTION
	22:30 - 23:00	0.50	CIRC	1	DRLIN1	CIRCULATE WHILE BUILDING TRIP SLUG
2/5/2008	23:00 - 00:00	1.00	SUR	1	DRLIN1	DROP SURVEY AND PUMP TRIP SLUG
	00:00 - 03:00	3.00	TRP	10	DRLIN1	TRIP OUT - TIGHT FROM 6317 TO 6275 - BLOW DOWN KELLY
	03:00 - 03:30	0.50	BOP	1	DRLIN1	PULL WORN RT. OUT AND OFF PIPE
	03:30 - 04:30	1.00	TRP	10	DRLIN1	FINISH TRIP OUT
	04:30 - 06:00	1.50	TRP	10	DRLIN1	PULL AND LD SURVEY TOOL (MIS-RUN) - DRAIN MOTOR AND
						CHANGE OUT BITS - CLEAN FLOOR FOR TRIP IN
	06:00 - 07:00	1.00	TRP	2	DRLIN1	TRIP BHA IN TO HOLE TO SHOE
	07:00 - 08:00	1.00	RIG	1	DRLIN1	SERVICE RIG AND TOP DRIVE
	08:00 - 09:00	1.00	RIG	2	DRLIN1	RIG REPAIR - FIX DRAWWORKS OIL LEAK - REPAIR LINE GUIDE
	09:00 - 12:30	3.50	TRP	2	DRLIN1	FINISH TRIPPING BHA AND DRILL PIPE TO FOUR STANDS FROM
2/5/2008						BOTTOM FILLING EVERY 1.5 ROWS
	12:30 - 13:00	0.50	BOP	1	DRLIN1	INSTALL NEW RT. HEAD
	13:00 - 14:30	1.50	REAM	1	DRLIN1	SAFETY WASH AND REAM 350' TO BOTTOM - TIGHT SPOTS FROM

## Operations Summary Report

Legal Well Name: TU 3-35-7-21ST2

Common Well Name: TU 3-35-7-21ST2

Event Name: DRILLING

Contractor Name: Unit Drilling Co.

Rig Name: UNIT

Start: 12/8/2007

Rig Release:

Rig Number: 109

Spud Date: 12/5/2007

End:

Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
2/5/2008	13:00 - 14:30	1.50	REAM	1	DRLIN1	TRIP OUT CLEANED UP GOOD
	14:30 - 18:00	3.50	DRL	1	DRLIN1	DRILL FROM 6586 TO 6510
	18:00 - 21:00	3.00	DRL	1	DRLIN1	DRILL FROM 6510 TO 6532 - TD FOR LOGS
	21:00 - 22:00	1.00	CIRC	1	DRLIN1	CIRCULATE BOTTOMS UP FOR SHORT TRIP
	22:00 - 23:00	1.00	TRP	14	DRLIN1	SHORT TRIP OUT 5 STANDS WET - NO DRAG - TRIP TO BOTTOM
	23:00 - 00:00	1.00	CIRC	1	DRLIN1	CIRCULATE BOTTOMS UP
	00:00 - 00:30	0.50	SUR	1	DRLIN1	DROP SURVEY - CHECK FOR FLOW - PUMP TRIP SLUG
	00:30 - 03:00	2.50	TRP	2	DRLIN1	BLOW DOWN KELLY - TRIP OUT WITH SLM
	03:00 - 03:30	0.50	BOP	1	DRLIN1	PULL RT. HEAD
	03:30 - 05:00	1.50	TRP	2	DRLIN1	FINISH TRIP OUT - PULL SURVEY TOOL - DRAIN MOTOR
	05:00 - 06:00	1.00	BOP	1	DRLIN1	TRYING TO DRAIN STACK AND PULL WEAR BUSHING
2/6/2008	06:00 - 06:30	0.50	BOP	1	DRLIN1	FINISH PULLING WEAR BUSHING AND PICK UP FLOOR
	06:30 - 07:30	1.00	LOG	1	DRLIN1	HOLD SAFETY MEETING AND RIG UP LOGGERS
	07:30 - 14:30	7.00	LOG	1	DRLIN1	RUN OPEN HOLE LOGS WITH NO HOLE PROBLEMS
	14:30 - 15:00	0.50	LOG	1	DRLIN1	RIG DOWN LOGGERS
	15:00 - 16:00	1.00	RIG	1	DRLIN1	SERVICE RIG AND TOP DRIVE
	16:00 - 16:30	0.50	TRP	2	DRLIN1	TRIP TO SHOE
	16:30 - 18:00	1.50	RIG	2	DRLIN1	REPLACE UPPER KELLY VALVE ON TOP DRIVE
	18:00 - 19:00	1.00	RIG	2	DRLIN1	FINISH RIG REPAIRS
	19:00 - 22:30	3.50	TRP	2	DRLIN1	TRIP IN TO HOLE - FILLING EVERY 1.5 ROWS
	22:30 - 23:00	0.50	BOP	1	DRLIN1	INSTALL RT. HEAD
	23:00 - 00:30	1.50	TRP	2	DRLIN1	FINISH TRIP TO BOTTOM - HOLE CLEAN
	00:30 - 02:00	1.50	CIRC	1	DRLIN1	CIRCULATE AND CONDITION MUD
	02:00 - 02:30	0.50	WCL	3	DRLIN1	CHECK FOR FLOW AND PUMP PILL FOR TRIP OUT
	02:30 - 06:00	3.50	TRP	2	DRLIN1	TRIP OUT FOR RUNNING CASING
2/7/2008	06:00 - 08:30	2.50	TRP	1	CSGIN1	FINISH TRIP OUT AND LD 8" EQUIPMENT
	08:30 - 09:30	1.00	TRP	1	CSGIN1	LD SUBS - CLEAN RIG FLOOR - HOLD SAFETY MEETING
	09:30 - 11:00	1.50	CSG	1	CSGIN1	RIG UP CASING CREW
	11:00 - 18:00	7.00	CSG	2	CSGIN1	PICK UP AND RUN CASIN - FILLING EVERY 10 AND CIRC FOR 10 MINUTES
	18:00 - 23:30	5.50	CSG	2	CSGIN1	PICK UP AND RUN CASING SLOWLY - STILL NO RETURNS
	23:30 - 00:30	1.00	CSG	2	CSGIN1	RUN IN LANDING JOINT AND SET
	00:30 - 02:30	2.00	CSG	1	CSGIN1	RIG DOWN CASING CREWS
	02:30 - 05:30	3.00	BOP	1	CSGIN1	SET PACK OFF ASSEMBLY - TEST - AND CEMENT ISOLATION TOOL
	05:30 - 06:00	0.50	CMT	1	CSGIN1	START RIGGING UP CEMENTERS WHILE WAITING ON LAST OF CEMENT TO SHOW UP
2/8/2008	06:00 - 11:00	5.00	CMT	1	CSGIN1	START RIGGING UP CEMENTERS AND EQUIPMENT - CEMENT HEAD LEAKING - WAIT FOR REPLACEMENT FROM VERNAL
	11:00 - 11:30	0.50	CMT	2	CSGIN1	HOLD SAFETY MEETING AND PRESSURE TEST LINES
	11:30 - 18:00	6.50	CMT	2	CSGIN1	CEMENT - NO RETURNS - CEMENT HEAD ON PUMP TRUCK KEPT PLUGGING UP - LOST AIR TO PUMP TRUCK FOR 15 MIN. AFTER DROPPING PLUG - NO RETURNS
	18:00 - 19:00	1.00	CMT	2	CSGIN1	FINISH CEMENT - DID NOT BUMP - FINAL PRESSURE = 481 PSI - FLOAT HELD
	19:00 - 19:30	0.50	CMT	2	CSGIN1	PUMP CAP - NO PSI
	19:30 - 21:00	1.50	CMT	1	CSGIN1	CLEAN UP AND RIG DOWN CEMENTERS
	21:00 - 22:00	1.00	BOP	1	CSGIN1	RIG DOWN CEMENT ISOLATION TOOL AND LANDING JOINT
	22:00 - 04:00	6.00	BOP	2	CSGIN1	DO 5000 PSI BOP TEST - ROTATE PUMP LINERS - BUILD 550 BBLs OF MUD VOLUME
	04:00 - 05:00	1.00	RIG	1	CSGIN1	SERVICE RIG AND TOP DRIVE
	05:00 - 06:00	1.00	BOP	1	CSGIN1	INSTALL WEAR BUSHING
2/9/2008	06:00 - 09:30	3.50	ISP	1	DRLIN2	INSPECT BHA - OK

## Operations Summary Report

Legal Well Name: TU 3-35-7-21ST2  
 Common Well Name: TU 3-35-7-21ST2  
 Event Name: DRILLING  
 Contractor Name: Unit Drilling Co.  
 Rig Name: UNIT

Spud Date: 12/5/2007  
 Start: 12/8/2007  
 End:  
 Rig Release:  
 Group:  
 Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
2/9/2008	09:30 - 14:00	4.50	TRP	2	DRLIN2	TEST MOTOR AND TRIP IN TO HOLE - PICK UP EXTRA COLLARS
	14:00 - 17:30	3.50	DRL	4	DRLIN2	TAG PLUG AT 5352 - DRILL PLUG AND CEMENT TO 6336
	17:30 - 18:00	0.50	CIRC	1	DRLIN2	CIRCULATE BOTTOMS UP FOR TESTING CASING
	18:00 - 18:30	0.50	EQT	2	DRLIN2	TEST CASING TO 1500 PSI - OK
	18:30 - 19:30	1.00	DRL	4	DRLIN2	DRILL CEMENT AND FLOAT COLLAR - 6366 TO 6502 - FLOAT NOT HOLDING
	19:30 - 20:30	1.00	CIRC	1	DRLIN2	CIRCULATE BOTTOMS UP WHILE BUILDING TRIP SLUG, PUMP SLUG
	20:30 - 21:30	1.00	TRP	13	DRLIN2	TRIP OUT DO TO FAILED FLOAT
	21:30 - 22:00	0.50	BOP	1	DRLIN2	PULL RT. HEAD
	22:00 - 00:30	2.50	TRP	13	DRLIN2	FINISH TRIP OUT
	00:30 - 01:30	1.00	RIG	1	DRLIN2	SERVICE RIG AND TOP DRIVE
2/10/2008	01:30 - 03:00	1.50	RIG	8	DRLIN2	CLEAN OUT SUCTIONS AND SUCTION SCREENS - REPAIR FLOAT - CHECK BIT
	03:00 - 06:00	3.00	TRP	2	DRLIN2	TRIP IN TO HOLE - FILLING EVERY 2 ROWS
	06:00 - 07:00	1.00	TRP	2	DRLIN2	TRIP IN FILLING EVERY 2 ROWS
	07:00 - 07:30	0.50	BOP	1	DRLIN2	INSTALL RT. HEAD
	07:30 - 08:00	0.50	OTH		DRLIN2	CHANGE OUT LOAD CELL FOR TORQUE MACHINE
	08:00 - 09:00	1.00	RIG	6	DRLIN2	CUT DRILL LINE
	09:00 - 10:00	1.00	RIG	1	DRLIN2	SERVICE RIG AND TOP DRIVE
	10:00 - 10:30	0.50	DRL	4	DRLIN2	FINISH DRILLING SHOE TRACK AND 10' FOOT OF OPEN HOLE
	10:30 - 11:30	1.00	CIRC	1	DRLIN2	CIRCULATE BOTTOMS UP FOR FIT
	11:30 - 12:00	0.50	EQT	2	DRLIN2	TRIED TO FIT FOR 13.5 - WOULD NOT HOLD - WILL HOLD 13.1
2/11/2008	12:00 - 18:00	6.00	DRL	1	DRLIN2	DRILL FROM 6532 TO 6742 - STARTED PUMPING BIT BALLING SWEEPS AT 6700 FEET
	18:00 - 06:00	12.00	DRL	1	DRLIN2	DRILL FROM 6742 TP 6908 - STILL RUNNING BIT BALLING SWEEPS - LOOKING FOR WASATCH AT AROUND 6942 ALONG BETTER P RATE - HEAVY CLAYS STILL COMING OVER AT PRESENT ( DARK GRAYS AND DEEP REDS)
	06:00 - 07:00	1.00	DRL	1	DRLIN2	DRILL FROM 6908 TO 6921
	07:00 - 08:00	1.00	RIG	1	DRLIN2	SERVICE RIG AND TOP DRIVE
	08:00 - 18:00	10.00	DRL	1	DRLIN2	DRILL FROM 6921 TO 7091
	18:00 - 06:00	12.00	DRL	1	DRLIN2	DRILL FROM 7091 TO 7215 - STILL RED AND GRAY CLAYS - HAVE DIFFERANT SWEEPS AND DRILLING PERRAMATERS AND STILL NOT HAPPY WITH PRATE BUT NICE TO HAVE SHORT REPORT - WILL DISCUSS WITH JIM D.
	06:00 - 17:00	11.00	DRL	1	DRLIN2	DRILL FROM 7215 TO 7370 - SWEEPS HELPING AND NEEDED - SERVICE RIG AND TOP DRIVE - CHANGE OUT RT. HEAD - HAS BAD BEARING PACK
	17:00 - 18:00	1.00	RIG	1	DRLIN2	DRILL FROM 7370 TO 7515 - HEAVY CLAYS - SWEEPS ARE WORKING -
	18:00 - 06:00	12.00	DRL	1	DRLIN2	DRILL FROM 7515 TO 7597
	06:00 - 14:30	8.50	DRL	1	DRLIN2	SERVICE RIG AND TOP DRIVE
2/13/2008	14:30 - 15:30	1.00	RIG	1	DRLIN2	DRILL FROM 7597 TO 7650 - 40% SHALE - 30%CLAYS AND SILT WITH 30% SANDSTONE - GALLONS AT 510 WITH WT. AT 15K TO 20K - IF NOT TRIPPING TODAY WE WILL WIRELINE SURVEY
	15:30 - 18:00	2.50	DRL	1	DRLIN2	DRILL FROM 7778 TO 7878
						CIRCULATE BOTTOMS UP WHILE DOING RIG SERVICE
2/14/2008	06:00 - 12:00	6.00	DRL	1	DRLIN2	WIRELINE SURVEY = .4 = 197.8
	12:00 - 13:00	1.00	RIG	1	DRLIN2	DRILL FROM 7878 TO 7950
	13:00 - 13:30	0.50	SUR	1	DRLIN2	DRILL FROM 7950 TO 8094 - LOST 150PSI AT 0100, POSSIBLY A JET - DRILLING SAME LITHOLOGY AS YESTERDAY AFTERNOON BUT HAVING TO ADD MORE BIT WT. TO DRILL SAME ROP
	13:30 - 18:00	4.50	DRL	1	DRLIN2	
	18:00 - 06:00	12.00	DRL	1	DRLIN2	

## Operations Summary Report

Legal Well Name: TU 3-35-7-21ST2  
 Common Well Name: TU 3-35-7-21ST2  
 Event Name: DRILLING  
 Contractor Name: Unit Drilling Co.  
 Rig Name: UNIT

Spud Date: 12/5/2007  
 Start: 12/8/2007 End:  
 Rig Release: Group:  
 Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
2/15/2008	06:00 - 07:30	1.50	DRL	1	DRLIN2	DRILL FROM 8094 TO 8110 - NEEDS EXTRA WT. TO DRILL AND FALLING OFF QUICKLY
	07:30 - 08:30	1.00	CIRC	1	DRLIN2	CIRCULATE BOTTOMS UP FOR TRIP OUT
	08:30 - 09:30	1.00	RIG	1	DRLIN2	SERVICE RIG AND TOP DRIVE
	09:30 - 10:00	0.50	SUR	1	DRLIN2	DROP SURVEY - 8065' - 1.7 - 151.5
	10:00 - 10:30	0.50	CIRC	1	DRLIN2	CHECK FOR FLOW AND PUMP PILL
	10:30 - 11:00	0.50	TRP	10	DRLIN2	TRIP OUT 15 STANDS
	11:00 - 11:30	0.50	BOP	1	DRLIN2	PULL RT HEAD
	11:30 - 15:30	4.00	TRP	10	DRLIN2	FINISH TRIP OUT - HOLE SMOOTH
	15:30 - 16:30	1.00	TRP	1	DRLIN2	DRAIN MUD MOTOR AND LD SURVEY TOOL - CHANGE OUT MM AND BIT
	16:30 - 17:00	0.50	CIRC	1	DRLIN2	SURFACE TEST MUD MOTOR
	17:00 - 18:00	1.00	TRP	2	DRLIN2	TRIP BHA INTO HOLE
	18:00 - 19:00	1.00	RIG	2	DRLIN2	RIG REPAIR - REPAIR LINE GUIGE AND REPAIR TARP ON TOP DRIVE LINES
	19:00 - 21:00	2.00	TRP	2	DRLIN2	TRIP IN TO HOLE FILLING EVERY 2 ROWS
	21:00 - 21:30	0.50	BOP	1	DRLIN2	INSTALL RT. HEAD
2/16/2008	21:30 - 22:30	1.00	TRP	2	DRLIN2	FINISH LAST TRIP TO BOTTOM - HOLE SMOOTH - NO FILL
	22:30 - 06:00	7.50	DRL	1	DRLIN2	DRILL FROM 8110 TO 8353 - BIT DIGGING LIKE MAD BADGER WITH SOFT GROUND - WHEN BADGER SLOWS WE HIT IT WITH A 10 BBL SWEEP - NO SEEPAGE AT PRESENT TIME
	06:00 - 06:30	0.50	DRL	1	DRLIN2	DRILL F/ 8343'-8366', WOB- 6-8K, RPM- 195 COMBINED, GPM- 514, MW- 9.5, VIS- 45
	06:30 - 08:00	1.50	CIRC	2	DRLIN2	LOST TOTAL RETURNS- PUMPED THREE 20 BBL PILLS WITH 10% LCM, REGAINED FULL RETURNS, LOST 140 BBL
	08:00 - 11:00	3.00	DRL	1	DRLIN2	DRILL F/ 8366'-8437', WOB- 8-10K, RPM- 172 COMBINED, GPM- 430, MW- 9.5, VIS- 45, SEEPING 2-3 BBL/HR, PUMPING 10 BBL SWEEPS WITH 10% LCM HOURLY
	11:00 - 11:30	0.50	RIG	2	DRLIN2	CHANGE OUT ROT. HEAD BEARING ASSEMBLY
2/17/2008	11:30 - 12:30	1.00	RIG	1	DRLIN2	LUBRICATE RIG & TOP DRIVE, FUNCTION ANNULAR & COM
	12:30 - 06:00	17.50	DRL	1	DRLIN2	DRILL F/ 8437'-8792', WOB- 6-12K, RPM- 172 COMBINED, GPM- 430, MW- 9.45, VIS- 43, SEEPING 2-3 BBL/HR, PUMPING LCM & BIT BALLING SWEEPS EVERY 1/2 HR
	06:00 - 11:30	5.50	DRL	1	DRLIN2	DRILL F/ 8792'-8899', WOB- 8-12K, RPM- 175 COMBINED, GPM- 430, MW- 9.4+, VIS- 43, PUMPING LCM & BIT BALLING SWEEPS HOURLY, SEEPING 2-3 BBL/HR
	11:30 - 12:30	1.00	RIG	1	DRLIN2	LUBRICATE RIG & TOP DRIVE, FUNCTION TOP PIPE RAMS & COM, CHANGED OIL IN TOP DRIVE MOTOR
	12:30 - 13:30	1.00	DRL	1	DRLIN2	DRILL F/ 8899'-8915', DRLG WITH SAME PARAMETERS, MW & VIS
	13:30 - 14:00	0.50	RIG	3	DRLIN2	CIRC. THRU & BLOW DOWN CHOKE MANIFOLD & GASBUSTER (THAWED OUT DISCHARGE LINE ON BUSTER)
	14:00 - 23:00	9.00	DRL	1	DRLIN2	DRILL F/ 8915'-9054', WOB- 10-14K, RPM- 175 COMBINED, GPM- 430, MW- 9.4, VIS- 42, SEEPING 2-3 BBL/HR, PUMPING BIT BALLING & LCM SWEEPS HOURLY
	23:00 - 23:30	0.50	RIG	2	DRLIN2	RIG REPAIR- RESET SCR'S & RESTART #2 GENERATOR (RIG BLACKED OUT)
2/18/2008	23:30 - 06:00	6.50	DRL	1	DRLIN2	DRILL F/ 9054'-9163' DRLG WITH SAME PARAMETERS, MW & VIS, SEEPING 2-3 BBL/HR, PUMPING BIT BALLING & LCM SWEEPS AS NEEDED.
	06:00 - 11:00	5.00	DRL	1	DRLIN2	DRILL F/ 9161'-9238', WOB- 10-14K. RPM- 175 COMBINED, GPM- 430, MW- 9.4, VIS- 43, PUMPING LCM & BIT BALLING SWEEPS AS NEEDED, SEEPING 2-3 BBL/HR
	11:00 - 12:00	1.00	RIG	1	DRLIN2	LUBRICATE RIG & TOP DRIVE, FUNCTION HCR & COM, CLEANED

## Operations Summary Report

Legal Well Name: TU 3-35-7-21ST2  
 Common Well Name: TU 3-35-7-21ST2  
 Event Name: DRILLING  
 Contractor Name: Unit Drilling Co.  
 Rig Name: UNIT

Start: 12/8/2007  
 Rig Release:  
 Rig Number: 109  
 Spud Date: 12/5/2007  
 End:  
 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
2/18/2008	11:00 - 12:00	1.00	RIG	1	DRLIN2	SUCTION LINES F/ BOTH PUMPS
	12:00 - 21:00	9.00	DRL	1	DRLIN2	DRILL F/ 9238'-9348', WOB- 10-18K, RPM- 175 COMBINED, GPM- 430, MW- 9.4, VIS- 42, SEEPING 2-3 BBLS/HR, PUMPING LCM & BIT BALLING SWEEPS AS NEEDED
	21:00 - 21:30	0.50	CIRC	1	DRLIN2	MIX TRIP SLUG & FILL TRIP TANK
	21:30 - 22:00	0.50	SUR	1	DRLIN2	DROP SURVEY, CHECK FOR FLOW, PUMP TRIP SLUG & BLOW DOWN TOP DRIVE & STANDPIPE
2/19/2008	22:00 - 04:30	6.50	TRP	10	DRLIN2	TRIP OUT F/ BIT #14, FUNCTIONED COM & PULLED ROT. HEAD AT CSG SHOE, HOLE FILL 16 BBLS OVER CALCULATED
	04:30 - 05:00	0.50	TRP	1	DRLIN2	RETRIEVE SURVEY TOOL, BREAK BIT & LAY DOWN MUD MOTOR
	05:00 - 06:00	1.00	TRP	1	DRLIN2	PICK UP & SURFACE TEST NEW MUD MOTOR
	06:00 - 07:00	1.00	RIG	1	DRLIN2	LUBRICATE RIG & TOP DRIVE
	07:00 - 08:00	1.00	RIG	2	DRLIN2	RESET TORQUE VALUES ON TOP DRIVE & CHANGE OUT SAVER SUB
	08:00 - 09:00	1.00	TRP	1	DRLIN2	PICK UP & SURFACE TEST NEW MUD MOTOR
	09:00 - 13:30	4.50	TRP	10	DRLIN2	TRIP IN, FILL PIPE & BREAK CIRC. EVERY 3000'
	13:30 - 14:00	0.50	TRP	10	DRLIN2	INSTALL ROT. HEAD @ 6490'
	14:00 - 14:30	0.50	RIG	2	DRLIN2	RIG REPAIR- SCR PROBLEMS (RESET SLIP SPROCKET)
	14:30 - 15:00	0.50	CIRC	1	DRLIN2	FILL PIPE & CIRC. F/ 20 MIN @ 80 SPM
	15:00 - 16:30	1.50	TRP	10	DRLIN2	TRIP IN, BREAK CIRC. EVERY 1500'
	16:30 - 17:00	0.50	REAM	1	DRLIN2	WASH 105' TO BOTTOM WITH 4' OF FILL
2/20/2008	17:00 - 06:00	13.00	DRL	1	DRLIN2	DRILL F/ 9348'-9555', WOB- 10-15K, RPM- 110 COMBINED, GPM- 430-450, MW- 9.4, VIS- 43, SEEPING 2-3 BBLS/HR, PUMPING BIT BALLING & LCM SWEEPS AS NEEDED
	06:00 - 14:30	8.50	DRL	1	DRLIN2	DRILL F/ 9555'-9711', WOB- 12-16K, RPM- 110 COMBINED, GPM- 450, MW- 9.4, VIS- 42, SEEPING 2-3 BBLS/HR, PUMPING LCM & BIT BALLING SWEEPS AS NEEDED.
	14:30 - 15:30	1.00	RIG	1	DRLIN2	LUBRICATE RIG & TOP DRIVE, FUNCTIONED LOWER PIPE RAMS & COM
2/21/2008	15:30 - 06:00	14.50	DRL	1	DRLIN2	DRILL F/ 9711'-9960', WOB- 12/16K, RPM- 110 COMBINED, GPM- 450, MW- 9.4, VIS- 42, BG GAS- 30u, CONN GAS- 100u, SEEPING 5-6 BBLS/HR, PUMPING BIT BALLING & LCM SWEEPS AS NEEDED
	06:00 - 09:30	3.50	DRL	1	DRLIN2	DRILL F/ 9960'-10016', WOB- 12-16K, RPM- 110 COMBINED, GPM- 450, MW- 9.5, VIS- 43, BG GAS- 30u, SEEPING 5-6 BBLS/HR, PUMPING BIT BALLING & LCM SWEEPS AS NEEDED
	09:30 - 10:30	1.00	RIG	1	DRLIN2	LUBRICATE RIG & TOP DRIVE, FUNCTIONED ANNULAR & COM
	10:30 - 01:00	14.50	DRL	1	DRLIN2	DRILL F/ 10016'-10210', WOB- 12-18K, RPM- 115 COMBINED, GPM- 470, MW- 9.6, VIS- 42, BG GAS- 20u, CONN GAS- 40u, SEEPING 2-3 BBLS/HR, PUMPING BIT BALLING & LCM SWEEPS AS NEEDED.
	01:00 - 02:00	1.00	REAM	1	DRLIN2	REAM THRU TIGHT HOLE F/ 10208'-10165'
2/22/2008	02:00 - 06:00	4.00	DRL	1	DRLIN2	DRILL F/ 10210'-10290', DRLG WITH SAME PARAMETERS, MW & VIS, SEEPING 2-3 BBLS/HR, PUMPING BIT BALLING & LCM SWEEPS AS NEEDED.
	06:00 - 10:30	4.50	DRL	1	DRLIN2	DRILL F/ 10290'-10383', WOB- 12-18K, RPM- 115 COMBINED, GPM- 470, MW- 9.7, VIS- 45, BG GAS- 25u, CONN GAS- 380u, SEEPING 2-3 BBLS/HR, PUMPING BIT BALLING & LCM SWEEPS AS NEEDED
	10:30 - 11:30	1.00	RIG	1	DRLIN2	LUBRICATE RIG & TOP DRIVE, FUNCTION LOWER PIPE RAMS & COM
	11:30 - 06:00	18.50	DRL	1	DRLIN2	DRILL F/ 10383'-10675', WOB- 10-18K, RPM- 115 COMBINED, GPM- 470, MW- 9.8, VIS- 45, BG GAS- 20u, SEEPING 2-3 BBLS/HR, PUMPING BIT BALLING & LCM SWEEPS AS NEEDED.
2/23/2008	06:00 - 14:30	8.50	DRL	1	DRLIN2	DRILL F/ 10675'-10790', WOB- 12-18K, RPM- 110 COMBINED, GPM- 430, MW- 9.8, VIS- 44, BG GAS- 20u, CONN GAS- 50u, SEEPING 5-6

## Operations Summary Report

Legal Well Name: TU 3-35-7-21ST2  
 Common Well Name: TU 3-35-7-21ST2  
 Event Name: DRILLING  
 Contractor Name: Unit Drilling Co.  
 Rig Name: UNIT

Start: 12/8/2007  
 Rig Release:  
 Rig Number: 109  
 Spud Date: 12/5/2007  
 End:  
 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
2/23/2008	06:00 - 14:30	8.50	DRL	1	DRLIN2	BBLS/HR, PUMPING BIT BALLING & LCM SWEEPS AS NEEDED
	14:30 - 17:30	3.00	REAM	1	DRLIN2	REAM OUT TIGHT HOLE F/ 10779'-10751', START RAISING MW TO 10 PPG
	17:30 - 19:30	2.00	DRL	1	DRLIN2	DRILL F/ 10779'-10812', DRLG WITH SAME PARAMETERS, MW- 9.9, VIS- 45, SEEPING 6 BBLS/HR, PUMPING BIT BALLING & LCM SWEEPS HOURLY
	19:30 - 20:30	1.00	RIG	1	DRLIN2	LUBRICATE RIG & TOP DRIVE, FUNCTION TOP PIPE RAMS & COM
	20:30 - 21:30	1.00	DRL	1	DRLIN2	DRILL F/ 10812'-10822', DRLG WITH SAME PARAMETERS, MW & VIS, ROP SLOWED TO 5'/HR
	21:30 - 23:00	1.50	CIRC	1	DRLIN2	CIRC., BUILD TRIP SLUG & SPOT 100 BBL 15% LCM PILL
	23:00 - 00:00	1.00	SUR	1	DRLIN2	DROP SURVEY, PUMP TRIP SLUG & BLOW DOWN SURFACE LINES.
	00:00 - 03:30	3.50	TRP	10	DRLIN2	TRIP OUT F/ BIT #15 (FIRST 5 STDs PULLED 30-50K OVER STRING WT)
	03:30 - 04:00	0.50	TRP	10	DRLIN2	PULL ROT. HEAD RUBBER @ 6450'
	04:00 - 06:00	2.00	TRP	10	DRLIN2	TRIP OUT F/ BIT #15
	06:00 - 07:00	1.00	TRP	10	DRLIN2	TRIP OUT BHA
	07:00 - 07:30	0.50	TRP	1	DRLIN2	RETRIEVE SURVEY TOOL, BREAK BIT & LAY DOWN MUD MOTOR
	07:30 - 08:30	1.00	TRP	1	DRLIN2	PICK UP & SURFACE TEST MUD MOTOR
	08:30 - 11:30	3.00	TRP	10	DRLIN2	TRIP IN SLOWLY, BREAK CIRC AFTER BHA, THEN EVERY 3000'
2/24/2008	11:30 - 13:00	1.50	TRP	2	DRLIN2	TRIP OUT 30 STDs TO RETRIEVE DP SCREEN (UNIT DRLG TIME)
	13:00 - 15:00	2.00	TRP	10	DRLIN2	TRIP IN SLOWLY, BREAK CIRC. EVERY 3000'
	15:00 - 15:30	0.50	TRP	10	DRLIN2	INSTALL ROT. HEAD
	15:30 - 16:30	1.00	RIG	6	DRLIN2	CUT DRLG LINE
	16:30 - 17:30	1.00	RIG	1	DRLIN2	LUBRICATE RIG & TOP DRIVE
	17:30 - 20:00	2.50	TRP	10	DRLIN2	TRIP IN SLOWLY, BREAK CIRC. EVERY 2000'
	20:00 - 21:30	1.50	REAM	1	DRLIN2	WASH & REAM TO BOTTOM F/ 10444'-10822', NO FILL
	21:30 - 06:00	8.50	DRL	1	DRLIN2	DRILL F/ 10822'-11003', WOB- 8-12K, RPM- 110 COMBINED, GPM- 430, MW- 10, VIS- 45, BG GAS- 20u, CONN GAS- 80u, TRIP GAS- 170u, SEEPING 5-6 BBLS/HR, PUMPING BIT BALLING & LCM SWEEPS HOURLY
	06:00 - 11:00	5.00	DRL	1	DRLIN2	DRILL F/ 11003'-11130', WOB- 8-12K, RPM- 110 COMBINED, GPM- 430, MW- 9.9, VIS- 43, BG GAS- 75u, CONN GAS- 1235u, SEEPING 5-6 BBLS/HR, PUMPING BIT BALLING & LCM SWEEPS HOURLY
	11:00 - 12:00	1.00	RIG	1	DRLIN2	LUBRICATE RIG & TOP DRIVE, FUNCTION ANNULAR & COM
	12:00 - 06:00	18.00	DRL	1	DRLIN2	DRILL F/ 11130'-11417', WOB- 12-18K, RPM- 110 COMBINED, GPM- 430, MW- 10, VIS- 44, BG GAS- 60u, CONN GAS- 175u, SEEPING 8 BBLS/HR, PUMPING BIT BALLING & LCM SWEEPS HOURLY
	06:00 - 13:30	7.50	DRL	1	DRLIN2	DRILL F/ 11417'-11514', WOB- 10-16K, RPM- 110 COMBINED, GPM- 430, MW- 10.1, VIS- 45, BG GAS- 50u, CONN GAS- 150u, SEEPING 4-5 BBLS/HR, PUMPING BIT BALLING & LCM SWEEPS HOURLY
	13:30 - 14:30	1.00	RIG	1	DRLIN2	LUBRICATE RIG & TOP DRIVE, FUNCTION TOP PIPE RAMS & COM
	14:30 - 06:00	15.50	DRL	1	DRLIN2	DRILL F/ 11514'-11702', WOB- 10-16K, RPM- 110 COMBINED, GPM- 430, MW- 10.2, VIS- 45, BG GAS- 40u, CONN GAS- 110u, SEEPING 8 BBLS/HR, PUMPING LCM SWEEPS AS NEEDED
2/27/2008	06:00 - 07:00	1.00	DRL	1	DRLIN2	DRILL F/ 11702'-11710', WOB- 12-18K, RPM- 110 COMBINED, GPM- 430, MW- 10.2, VIS- 45, BG GAS- 40u, SEEPING 8 BBLS/HR, PUMPING LCM SWEEPS AS NEEDED.
	07:00 - 07:30	0.50	RIG	3	DRLIN2	CLEAN OUT SUCTION LINE FOR #1 PUMP
	07:30 - 12:00	4.50	DRL	1	DRLIN2	DRILL F/ 11710'-11757', DRLG WITH SAME PARAMETERS, MW & VIS, PUMPING LCM SWEEPS AS NEEDED.
	12:00 - 13:00	1.00	CIRC	1	DRLIN2	CIRC., MIX TRIP SLUG & FILL TRIP TANK
	13:00 - 13:30	0.50	SUR	1	DRLIN2	DROP SURVEY & CHECK F/ FLOW

## Operations Summary Report

Legal Well Name: TU 3-35-7-21ST2

Common Well Name: TU 3-35-7-21ST2

Event Name: DRILLING

Contractor Name: Unit Drilling Co.

Rig Name: UNIT

Start: 12/8/2007

Rig Release:

Rig Number: 109

Spud Date: 12/5/2007

End:

Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
2/27/2008	13:30 - 16:00	2.50	TRP	10	DRLIN2	PUMP TRIP SLUG & TRIP OUT F/ BIT #16
	16:00 - 16:30	0.50	RIG	2	DRLIN2	REPAIR BREAK OUT CABLE ON BREAK OUT TONGS
	16:30 - 21:30	5.00	TRP	10	DRLIN2	TRIP OUT TO BHA
	21:30 - 22:00	0.50	RIG	7	DRLIN2	HOLD SAFETY MEETING WITH BHA INSPECTION CREW
	22:00 - 03:00	5.00	TRP	1	DRLIN2	TRIP OUT INSPECTING BHA (EVERYTHING OK)
	03:00 - 04:00	1.00	TRP	1	DRLIN2	RETRIEVE SURVEY TOOL, BREAK BIT & LAY DOWN MUD MOTOR, FUNCTIONED BLIND RAMS
	04:00 - 05:00	1.00	RIG	1	DRLIN2	LUBRICATE RIG & TOP DRIVE, REPLACED BREAKOUT CABLE ON BREAKOUT TONGS
2/28/2008	05:00 - 06:00	1.00	TRP	1	DRLIN2	PICK UP & SURFACE TEST MUD MOTOR
	06:00 - 07:30	1.50	TRP	1	DRLIN2	CHANGE OUT BITS AND MUD MOTORS - SURFACE TEST MUD MOTOR
	07:30 - 12:30	5.00	TRP	2	DRLIN2	TRIP TO SHOE
	12:30 - 13:00	0.50	BOP	1	DRLIN2	INSTALL RT. HEAD
	13:00 - 17:00	4.00	TRP	2	DRLIN2	FINISH TRIP TO BOTTOM - NO FILL - HOLE IN GOOD SHAPE
	17:00 - 18:00	1.00	DRL	1	DRLIN2	DRILL FROM 11757 TO 11767 - BREAK BIT IN
	18:00 - 02:30	8.50	DRL	1	DRLIN2	DRILL FROM 11767 TO 11896 - HOLE SEEPING 7 BBLs PER HOUR - CONNECTIONS GOOD
2/29/2008	02:30 - 06:00	3.50	RIG	2	DRLIN2	TOP DRIVE MOTOR DOWN WITH NO OIL PRESSURE - COMPUTER WILL NOT RESINK - TOP DRIVE HAND ON LOCATION - SHOULD GET ANSWER SOON
	06:00 - 15:30	9.50	RIG	2	DRLIN2	TESCO, UNIT AND DETROIT MECHANICS WORKING ON POWER UNIT - REPAIRS DONE - BYPASS SHAKERS AS WE LOST RETURNS WHILE WAITING FOR REPAIRS, GET RETURNS BACK AND BUILD VOLUME WHILE BUILDING ACTIVE SYSTEM WITH 10% LCM
	15:30 - 16:00	0.50	RIG	2	DRLIN2	CIRCULATE OIL IN SYSTEM TO WARM UP
	16:00 - 17:00	1.00	RIG	1	DRLIN2	SERVICE RIG AND TOP DRIVE
	17:00 - 18:00	1.00	CIRC	1	DRLIN2	WORK HOLE - GETTING HIGH ROTARY TORQUE AND HIGH DIFFERENTIAL WHILE TRYING TO WORK TO BOTTOM TO DRILL AHEAD
	18:00 - 19:00	1.00	CIRC	1	DRLIN2	TRY TO GET TO DRILL
	19:00 - 20:00	1.00	TRP	14	DRLIN2	SHORT TRIP 5 STANDS TO SEE IF IT HELPS
	20:00 - 20:30	0.50	DRL	1	DRLIN2	DRILL FROM 11896 TO 11900 - 1800 PSI RT. TORQUE, 550 PSI DIFF. BIT WT. ONLY 10K
	20:30 - 21:30	1.00	CIRC	1	DRLIN2	CIRCULATE BOTTOMS UP WHILE BUILDING TRIP SLUG AND FILLING TRIP TANK
	21:30 - 00:30	3.00	TRP	13	DRLIN2	TRIP OUT FROM 11900 TO 6147
	00:30 - 01:00	0.50	BOP	1	DRLIN2	PULL RT. HEAD
	01:00 - 01:30	0.50	TRP	13	DRLIN2	TRIP OUT FROM 6147 TO 5097
	01:30 - 06:00	4.50	RIG	2	DRLIN2	MAIN DRAWWORKS DRIVE CHAIN FAILED - DIAMOND 120 6 LINK - INSTALLED NEW DIAMOND CHAIN
3/1/2008	06:00 - 09:00	3.00	TRP	13	DRLIN2	FINISH TRIP OUT - LEFT BIT, BEARING ASSEMBLY, DRIVESHAFT AND ROTOR IN HOLE
	09:00 - 10:00	1.00	RIG	1	DRLIN2	SERVICE RIG AND TOP DRIVE
	10:00 - 13:30	3.50	FISH	5	DRLIN2	GET FISHING HAND AND TOOLS SENT TO LOCATION
	13:30 - 15:00	1.50	FISH	5	DRLIN2	UNLOAD TOOLS - STRAP ALL TOOLS - LD NON-MAG AND DRILLING JARS
	15:00 - 16:00	1.00	TRP	1	DRLIN2	PICK UP AND RUN FISHING TOOLS
	16:00 - 18:00	2.00	TRP	2	DRLIN2	TRIP BHA INTO HOLE
	18:00 - 21:00	3.00	TRP	2	DRLIN2	TRIP INTO HOLE TO SHOE
	21:00 - 21:30	0.50	BOP	1	DRLIN2	INSTALL RT. HEAD
	21:30 - 22:00	0.50	CIRC	1	DRLIN2	CIRCULATE TRIP SLUG TO SURFACE

## Operations Summary Report

Legal Well Name: TU 3-35-7-21ST2

Common Well Name: TU 3-35-7-21ST2

Event Name: DRILLING

Contractor Name: Unit Drilling Co.

Rig Name: UNIT

Start: 12/8/2007

Rig Release:

Rig Number: 109

Spud Date: 12/5/2007

End:

Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
3/1/2008	22:00 - 06:00	8.00	RIG	2	DRLIN2	REPAIR RIG - UNIT HAD MECHANIC TEAR APART AND DUE REPAIRS ON SHEARED STUDS ON LOW DRUM CLUTCH - LOOKING FOR REPAIRS TO BE DONE AROUND NOON
3/2/2008	06:00 - 14:30	8.50	RIG	2	DRLIN2	REPAIR CLUCH ASSEMBLY
	14:30 - 17:00	2.50	TRP	2	DRLIN2	TRIP INTO HOLE
	17:00 - 18:00	1.00	FISH	5	DRLIN2	WASH OVER FISH - CHECK ONE MORE TIME WE HAD FISH - PUMP PRESSURE UP - OVER PULL 25K OVER
	18:00 - 19:00	1.00	CIRC	1	DRLIN2	CIRCULATE WHILE BUILDING PILL AND FILLING TRIP TANK - PUMP PRESSURE STILL 250 PSI OVER
	19:00 - 23:30	4.50	TRP	2	DRLIN2	PUMP SLUG - BLOW DOWN KELLY AND TRIP OUT - STANDS 3-4-5 HAD TIGHT SPOTS - WORKED OVER PULL TO 90K OVER - ONCE THRU TIGHT SPOTS WE STILL HAD 25K OVER PULL - KEEP COMING OUT - USE PIPE SPINNERS COMING OUT - TRIP TO SHOE
	23:30 - 00:00	0.50	BOP	1	DRLIN2	PULL RT HEAD
	00:00 - 04:30	4.50	TRP	2	DRLIN2	TRIP OUT USING PIPE SPINNERS - HOLE FILL = 28 BBLS OVER CALCULATED
	04:30 - 06:00	1.50	FISH	5	DRLIN2	BREAK FISHING TOOLS ON BREAKS ON WAY OUT - NO FISH - RECHECK AND SET TOOLS FOR TRIP BACK IN - GRAPPLE NOT SHOWING WEAR AS TO CATCHING AND RELEASING THE FISH - AFETR TALKING ABOUT THE SITUATION WE ARE GOING BACK IN THE SAME - LOOKS LIKE OVER PULL IS FROM WASHOVER PIPE AS WE HAD A MUD RING ON TOP OF WASHPIPE NECK - WASH PIPE IS 7 5/8 WITH THE CUT RIGHT AT 7 7/8 - WE WILL GO BACK DOWN AND START CIRCULATING HARD WITH SLOW ROTATION 500' ABOVE FISH TO CLEAN UP TIGHT SPOTS - THEN PROCEED BACK OVER ROTOR TO FISH
	06:00 - 07:00	1.00	TRP	1	DRLIN2	RE-TORQUE FISHING TOOLS
	07:00 - 11:00	4.00	TRP	2	DRLIN2	TRIP TO SHOE
3/3/2008	11:00 - 11:30	0.50	BOP	1	DRLIN2	INSTALL RT. HEAD
	11:30 - 12:30	1.00	RIG	6	DRLIN2	CUT 120' OF DRILL LINE - CIRCULATE BOTTOMS UP WHILE CUTTING LINE
	12:30 - 13:30	1.00	RIG	1	DRLIN2	SERVICE RIG AND TOP DRIVE
	13:30 - 16:00	2.50	TRP	2	DRLIN2	TRIP TO 11158 WHICH IS 8 STANDS FROM BOTTOM WHICH IS THE FIRST PLACE WE SEEN HOLE TAKE WT.
	16:00 - 18:00	2.00	REAM	1	DRLIN2	WASH AND REAM HOLE FROM 11158 TO 11608
	18:00 - 22:30	4.50	REAM	1	DRLIN2	FINISH WASH AND REAM FROM 11608 TO 11890
	22:30 - 00:30	2.00	FISH	2	DRLIN2	WORK OVER AND DOWN ON FISH - USED BUMPER SUB TO GET ON FISH OR WHAT EVER IS IN OUR WAY
	00:30 - 02:30	2.00	FISH	3	DRLIN2	JAR AND WORK STUCK PIPE AT 11826 - CAME OFF BOTTOM 75K OVER WITH NO CIRCULATION - PLUGGED SOMEWHERE - JARRED ENOUGH TO FINALLY GET CIRCULATION AND WORK FREE
	02:30 - 03:30	1.00	TRP	2	DRLIN2	TRIP TO 11239 - PIPE STAYED FULL SO HOPEFULLY WE HAVE FISH
	03:30 - 04:30	1.00	CIRC	1	DRLIN2	CIRCULATE AND CONDITION WHILE MIXING AND PUMPING TRIP SLUG - BLOW KELLY DOWN
3/4/2008	04:30 - 06:00	1.50	TRP	2	DRLIN2	TRIP OUT OF HOLE
	06:00 - 08:00	2.00	TRP	14	DRLIN2	TRIP OUT HOPEFULLY WITH FISH
	08:00 - 08:30	0.50	BOP	1	DRLIN2	PULL RT. HEAD
	08:30 - 11:00	2.50	TRP	2	DRLIN2	FINISH TRIP OUT - NO FISH
	11:00 - 11:30	0.50	WOT	2	DRLIN2	WAIT ON ORDERS WHILE CHECKING MARKS ON TOOLS
	11:30 - 13:30	2.00	FISH	5	DRLIN2	BREAK AND LD FISHING TOOLS



## Operations Summary Report

Legal Well Name: TU 3-35-7-21ST2  
 Common Well Name: TU 3-35-7-21ST2  
 Event Name: DRILLING  
 Contractor Name: Unit Drilling Co.  
 Rig Name: UNIT

Spud Date: 12/5/2007  
 Start: 12/8/2007  
 End:  
 Rig Release:  
 Group:  
 Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
3/4/2008	13:30 - 14:30	1.00	TRP	1	DRLIN2	PICK UP BIT - BIT SUB - NON-MAG
	14:30 - 18:00	3.50	TRP	2	DRLIN2	TRIP TO SHOE
	18:00 - 18:30	0.50	BOP	1	DRLIN2	INSTALL RT. HEAD
	18:30 - 19:30	1.00	CIRC	1	DRLIN2	CIRCULATE BOTTOMS UP TO GET RID OF TRIP SLUG
	19:30 - 01:00	5.50	TRP	2	DRLIN2	FINISH TRIP TO BOTTOM - ONE TIGHT SPOT AT 10111 -
	01:00 - 02:00	1.00	REAM	1	DRLIN2	SAFETY WASH AND REAM LAST 180' TO BOTTOM - TAGGED POSSIBLE FISH AT 11797, PUSHED FOR 5' THEN CAME FREE AND TAGGED AGAIN AT 11867 WHICH DOES PUT IT BACK ON BOTTOM
3/5/2008	02:00 - 05:30	3.50	CIRC	1	DRLIN2	CIRCULATE AND CONDITION WHILE PICKING UP 44 JOINTS OF DRILL PIPE FOR CEMENT JOB - PRE TREAT MUD SYSTEM WITH CITRIC ACID AND CARBONATE FOR CEMENT - PIPE SCREENS FILLING UP WITH RUBBER, I AM SURE COMING FROM STATOR RUBBER, SCREENS HAVE BEEN BYPASSED FOR 3 DAYS - WHEN WE GET BACK ON BOTTOM WE WILL HAVE TO SHACK SYSTEM COMPLETELY CLEAN FOR DIAMOND BIT AND DIRECTIONAL TOOLS
	05:30 - 06:00	0.50	TRP	2	DRLIN2	TRIP OUT FOR SETTING CEMENT PLUG
	06:00 - 08:30	2.50	TRP	2	DRLIN2	TRIP OUT CLEAN OUT BIT
	08:30 - 09:00	0.50	BOP	1	DRLIN2	PULL RT. HEAD
	09:00 - 12:00	3.00	TRP	1	DRLIN2	FINISH TRIP OUT
	12:00 - 13:00	1.00	TRP	1	DRLIN2	LAY DOWN BIT - BIT SUB AND NON-MAG
	13:00 - 14:00	1.00	RIG	1	DRLIN2	SERVICE RIG AND TOP DRIVE
	14:00 - 17:00	3.00	TRP	2	DRLIN2	TRIP DRILL PIPE IN TO HOLE FOR PUMPING CEMENT
	17:00 - 17:30	0.50	BOP	1	DRLIN2	INSTALL RT. HEAD
	17:30 - 18:00	0.50	TRP	2	DRLIN2	FINISH TRIPPING DRILL PIPE IN TO HOLE -
	18:00 - 19:00	1.00	TRP	3	DRLIN2	PICK UP 700' OF DRILL PIPE TO TOP OF FISH
	19:00 - 22:30	3.50	CIRC	1	DRLIN2	CIRCULATE AND CONDITION MUD FOR PUMPING CEMENT PLUG - HALLIBURTON SHOWED UP ON TIME
	22:30 - 23:30	1.00	CMT	1	DRLIN2	RIG UP CEMENTERS AND HOLD SAFETY MEETING
	23:30 - 01:00	1.50	CMT	4	DRLIN2	PUMP CEMENT PLUG - TURNED PUMPS OFF 4 BBLS EARLY DUE TO PRESSURE INCREASE - HELD PRESSURE WITH CHARGE PUMP
	01:00 - 01:30	0.50	TRP	2	DRLIN2	VERY SLOWLY TRIP 8 STANDS OUT - KELLY UP ON 9TH STAND AND PULL TO TOP WHICH PUTS BOTTOM OF PIPE ON TOP OF SPACER
3/6/2008	01:30 - 03:00	1.50	CIRC	1	DRLIN2	CIRCULATE BOTTOMS UP AT 80 STROKES PM = 8 BBLS PER MINUTE
	03:00 - 06:00	3.00	TRP	2	DRLIN2	TRIP OUT
	06:00 - 08:30	2.50	TRP	2	DRLIN2	FINISH TRIP OUT
	08:30 - 09:30	1.00	TRP	1	DRLIN2	LD DOUBLE DRILL PIPE - LD CEMENT MULE SHOE
	09:30 - 11:30	2.00	DRL	3	DRLIN2	PICK UP DIRECTIONAL TOOLS - ADJUST MOTOR TO 1.83 - .3 RATIO - ENTER IN PASON
	11:30 - 12:00	0.50	DRL	2	DRLIN2	SURFACE TEST MUD MOTOR
	12:00 - 12:30	0.50	OTH		DRLIN2	CLEAN AND ORGANIZE FLOOR FOR TRIP IN
	12:30 - 18:00	5.50	TRP	2	DRLIN2	TRIP BHA IN TO HOLE AND FILLING TWICE - FILL PIPE EVERY 2 ROWS AND INSTALL RT. HEAD AT SHOE
	18:00 - 19:30	1.50	TRP	2	DRLIN2	FINISH TRIP TO BOTTOM
	19:30 - 20:30	1.00	DRL	5	DRLIN2	RT. AND SLIDE IN CEMENT FROM 11366 TO 11410
	20:30 - 22:30	2.00	DRL	2	DRLIN2	ORIENT TOOLS - CHECK TOOLS - 11410 TO 11413 - SLIDE FROM 11413 TO 11416, AVERAGE = 7' ROP - JUST A HARE TO SOFT SO WE ARE GOING TO TIME DRILLING
	22:30 - 06:00	7.50	DRL	2	DRLIN2	TIME DRILL FROM 11416 TO 11423 - INCREASING RPM FROM 122 TO 142 AY 0600 - 10% SHALE - 90% CEMENT

## Operations Summary Report

Legal Well Name: TU 3-35-7-21ST2  
 Common Well Name: TU 3-35-7-21ST2  
 Event Name: DRILLING  
 Contractor Name: Unit Drilling Co.  
 Rig Name: UNIT

Start: 12/8/2007  
 Rig Release:  
 Rig Number: 109  
 Spud Date: 12/5/2007  
 End:  
 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
3/7/2008	06:00 - 14:30	8.50	DRL	2	DRLIN2	- TIME DRILL FROM 11423 TO 11438
	14:30 - 15:00	0.50	CIRC	1	DRLIN2	CIRCULATE SAMPLE UP AND PUMP TRIP SLUG
	15:00 - 18:00	3.00	TRP	10	DRLIN2	TRIP OUT OF HOLE FOR BIT CHANGE AND MUD MOTOR WITH A 1.5 BEND
	18:00 - 19:00	1.00	TRP	2	DRLIN2	TRIP OUT
	19:00 - 19:30	0.50	BOP	1	DRLIN2	PULL RT. HEAD
	19:30 - 21:30	2.00	TRP	2	DRLIN2	FINISH TRIP OUT
	21:30 - 22:30	1.00	TRP	1	DRLIN2	LAY DOWN MUD MOTOR AND BIT - PICK UP SAME
	22:30 - 23:30	1.00	DRL	3	DRLIN2	LD MWD TOOLS - PICK UP SAME -
	23:30 - 00:30	1.00	RIG	1	DRLIN2	SERVICE RIG AND TOP DRIVE
	00:30 - 01:30	1.00	DRL	3	DRLIN2	TEST MWD ALONG WITH SURFACE TEST MOTOR - ( PICK UP JOINT OF DP AND CROSS OVER AND LD SAME
	01:30 - 05:00	3.50	TRP	2	DRLIN2	TRIP BHA AND BIT TO SHOE FOR CIRC. BOTTOMS UP AND CUTTING OF DRILL LINE
	05:00 - 05:30	0.50	BOP	1	DRLIN2	INSTALL RT. HEAD
	05:30 - 06:00	0.50	RIG	6	DRLIN2	CUT DRILL LINE WHILE CIRCULATING BOTTOMS UP - ALSO GOT A HOLD OF BLM AND GOT VERBAL OK ON EXTENTION FOR BOP
						TEST AS WE ARE DUE THIS COMING MONDAY ( CLIFF JOHNSON )
3/8/2008	06:00 - 06:30	0.50	RIG	6	DRLIN2	FINISH UP ON CUTTING DRILL LINE - STARTED CIRCULATING BOTTOMS UP FROM SHOE
	06:30 - 07:00	0.50	RIG	1	DRLIN2	SERVICE RIG AND TOP DRIVE - FINISH CIRCULATING BOTTOMS UP FROM SHOE
	07:00 - 09:30	2.50	TRP	2	DRLIN2	FINISH TRIP IN EXCEPT LAST 4 STANDS
	09:30 - 11:30	2.00	REAM	1	DRLIN2	WASH AND REAM LAST FOUR STANDS DOWN TIGHT SPOT FROM 11122 TO 11225
	11:30 - 13:00	1.50	DRL	3	DRLIN2	ORIENT TOOLS IN TO SIDE TRACK - TOOL WANTING TO FLIP
	13:00 - 15:00	2.00	DRL	2	DRLIN2	SLIDE FROM 11438 TO 11448
	15:00 - 16:00	1.00	CIRC	5	DRLIN2	CIRCULATE SAMPLES UP
	16:00 - 18:00	2.00	DRL	2	DRLIN2	SLIDE FROM 11448 TO 11558
	18:00 - 18:30	0.50	CIRC	5	DRLIN2	CIRCULATE UP SAMPLE - 70%SS -30% SHALE AND SILTSTONE - NO CEMENT
	18:30 - 20:30	2.00	DRL	1	DRLIN2	DRILL FROM 11458 TO 11468
	20:30 - 21:00	0.50	SUR	1	DRLIN2	SURVEY - 11432 - 1.10 - 183.35
	21:00 - 22:30	1.50	DRL	1	DRLIN2	DRILL FROM 11468 TO 11478
	22:30 - 23:00	0.50	SUR	1	DRLIN2	SURVEY - 11442 - .75 - 193.10
	23:00 - 01:00	2.00	DRL	2	DRLIN2	SLIDE FROM 11478 TO 11488
3/9/2008	01:00 - 04:00	3.00	DRL	1	DRLIN2	DRILL FROM 11488 TO 11508
	04:00 - 04:30	0.50	SUR	1	DRLIN2	SURVEY - 11472 - .35 - 316.06 - WITH THIS SURVEY WE HAVE A 1.1' DEPARTURE FROM OLD HOLE
	04:30 - 05:30	1.00	DRL	2	DRLIN2	SLIDE FROM 11508 TO 11518
	05:30 - 06:00	0.50	DRL	1	DRLIN2	DRILL FROM 11518 TO 11520
	06:00 - 08:30	2.50	DRL	1	DRLIN2	DRILL FROM 11520 TO 11538
	08:30 - 09:00	0.50	SUR	1	DRLIN2	SURVEY - 11502 - 1.14 - 355.35
	09:00 - 12:00	3.00	DRL	2	DRLIN2	SLIDE FROM 11538 TO 11549
	12:00 - 14:00	2.00	DRL	1	DRLIN2	DRILL FROM 11549 TO 11568
	14:00 - 14:30	0.50	SUR	1	DRLIN2	SURVEY - 11532 - 2.15 - 356.93
	14:30 - 15:00	0.50	RIG	1	DRLIN2	SERVICE RIG
	15:00 - 18:00	3.00	DRL	1	DRLIN2	DRILL FROM 11568 TO 11596
	18:00 - 18:30	0.50	SUR	1	DRLIN2	SURVEY - 11562 - 3.03 - 359.74
	18:30 - 06:00	11.50	DRL	1	DRLIN2	DRILL FROM 11596 TO 11673 - SURVEYS = 11596 - 3.25 - 359.13, - 11628 - 3.25 - 359.74 - AT 11673 WE WILL DO A 10' SLIDE TO BRING BACK A HAIR IN CASE BITS GOES UP - AT 11664 WE ARE 15.6' AWAY FROM OLD HOLE

## Operations Summary Report

Legal Well Name: TU 3-35-7-21ST2  
 Common Well Name: TU 3-35-7-21ST2  
 Event Name: DRILLING  
 Contractor Name: Unit Drilling Co.  
 Rig Name: UNIT

Start: 12/8/2007  
 Rig Release:  
 Rig Number: 109  
 Spud Date: 12/5/2007  
 End:  
 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
3/10/2008	06:00 - 09:00	3.00	DRL	2	DRLIN2	SLIDE FROM 11673 TO 11683
	09:00 - 10:30	1.50	DRL	1	DRLIN2	DRILL FROM 11683 TO 11696
	10:30 - 11:30	1.00	RIG	1	DRLIN2	SERVICE RIG AND TOP DRIVE
	11:30 - 12:00	0.50	SUR	1	DRLIN2	SURVEY = 11660 - 3.08 - 358.50
	12:00 - 16:30	4.50	DRL	1	DRLIN2	DRILL FROM 11696 TO 11729
	16:30 - 17:00	0.50	SUR	1	DRLIN2	SURVEY = 11693 - 2.55 - 358.60
	17:00 - 18:00	1.00	CIRC	1	DRLIN2	CIRCULATE HOLE CLEAN WITH SWEEP
	18:00 - 18:30	0.50	CIRC	1	DRLIN2	FINISH CIRCULATING BOTTOMS UP
	18:30 - 19:30	1.00	REAM	1	DRLIN2	SAFETY WASH AND REAM 8 STANDS OUT OF HOLE - SEEN VERY LITTLE HOLE DRAG
	19:30 - 20:00	0.50	CIRC	1	DRLIN2	PUMP TRIP SLUG AND BLOW DOWN KELLY
	20:00 - 21:00	1.00	TRP	2	DRLIN2	TRIP OUT
	21:00 - 21:30	0.50	BOP	1	DRLIN2	PULL RT. HEAD
	21:30 - 22:00	0.50	CIRC	1	DRLIN2	RE FILL TRIP TANK
	22:00 - 02:30	4.50	TRP	2	DRLIN2	FINISH TRP OUT OF HOLE - 23.8 BBLs EXTRA ON TRIP OUT
	02:30 - 04:00	1.50	TRP	1	DRLIN2	DRAIN AND LD ALL DIRECTIONAL TOOLS
	04:00 - 04:30	0.50	OTH		DRLIN2	CLEAN FLOOR FOR TRIP IN TO HOILE
	04:30 - 05:00	0.50	TRP	1	DRLIN2	PICK UP NEW MUD MOTOR AND BIT AND TORQUE SAME
	05:00 - 05:30	0.50	CIRC	1	DRLIN2	PICK UP JOINT OF DRILL PIPE AND XO - SURFACE TEST MM - OK
	05:30 - 06:00	0.50	TRP	2	DRLIN2	START TRIPPING BHA IN TO HOLE
3/11/2008	06:00 - 10:00	4.00	TRP	2	DRLIN2	TRIP IN TO HOLE FILLING 2 ROWS
	10:00 - 11:00	1.00	CIRC	1	DRLIN2	INSTALL RT. WHILE CIRCULATING BOTTOMS UP TO GET RID OF TRIP SLUG
	11:00 - 13:00	2.00	TRP	2	DRLIN2	TRIP TO 10358 - HIT BRIDGE
	13:00 - 17:30	4.50	REAM	1	DRLIN2	WASH AND REAM FROM 10358 TO 11729 - 8' OF FILL
	17:30 - 18:00	0.50	DRL	1	DRLIN2	DRILL FROM 11729 TO 11750
	18:00 - 06:00	12.00	DRL	1	DRLIN2	DRILL FROM 11750 TO 11890 - AFTER GETTING TO BOTTOM FINISH DRILLING KELLY DOWN, REAMED HOLE TWO TIMES, PULL DRILL PIPE SCREEN TO PUT IN KELLY JOINT AND GOT BIT STUCK, COULD RT BUT STRING HELD PRESSURE, WORKED OVER PULL AND RT TORQUE TO GET FREE, RETURNS NOT SHOWING ANY HEAVY SIGNS OF SLOUGHING, WE DID HIT SOME BRIDES AND TIGHT SPOTS ON WAY INTO HOLE - WE ARE NOW HOLDING MUD WT. AT 10.6 - MILL STARTED IN TO KICK OFF HOLE AT 11862 AND SO FAR DOING FINE
3/12/2008	06:00 - 15:00	9.00	DRL	1	DRLIN2	DRILL FROM 11890 TO 11963
	15:00 - 16:00	1.00	RIG	1	DRLIN2	SERVICE RIG AND TOP DRIVE
	16:00 - 18:00	2.00	DRL	1	DRLIN2	DRILL FROM 11963-11976 - DUMP SAND TRAP - PICKED UP EXTRA GAS FROM DEPTH 11918 TO 11925 - LOSING 6 BBLs PER HOUR - PUMPING 5 BBL SWEEPS EVERY HOUR DOING OK
	18:00 - 21:30	3.50	DRL	1	DRLIN2	DRILL FROM 11976 TO 12001 -
	21:30 - 23:00	1.50	CIRC	1	DRLIN2	RESTART BIT - WORK HOLE - WORK BIT AND MILL TRYING TO GET TO DRILL - WORKED BIT WT. TO 35K - PICKED UP DIFFRENTIAL BUT WOULD NOT DRILL OFF
	23:00 - 01:00	2.00	TRP	2	DRLIN2	WASH AND BACKREAM 11 STANDS OUT - HOLE DID WELL WITH NO TIGHT SPOTS VISIBLE WITH PUMPS IN
	01:00 - 02:00	1.00	CIRC	1	DRLIN2	CIRCULATE BOTTOMS UP GETTING RID OF GAS AND BUILDING TRIP SLUG
	02:00 - 02:30	0.50	CIRC	1	DRLIN2	PUMP PILL AND BLOW DOWN KELLY AND PUMP LINES
3/13/2008	02:30 - 06:00	3.50	TRP	10	DRLIN2	TRIP OIT OF HOLE FOR BIT
	06:00 - 06:30	0.50	BOP	1	DRLIN2	PULL RT HEAD
	06:30 - 09:00	2.50	TRP	10	DRLIN2	FINISH TRIP OUT
	09:00 - 10:00	1.00	TRP	1	DRLIN2	BIT IS DBR - REJET BIT - CLEAN FLOAT ON MUD MOTOR WHILE

## Operations Summary Report

Legal Well Name: TU 3-35-7-21ST2  
 Common Well Name: TU 3-35-7-21ST2  
 Event Name: DRILLING  
 Contractor Name: Unit Drilling Co.  
 Rig Name: UNIT

Start: 12/8/2007  
 Rig Release:  
 Rig Number: 109  
 Spud Date: 12/5/2007  
 End:  
 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
3/13/2008	09:00 - 10:00	1.00	TRP	1	DRLIN2	CLEANING FLOOR FOR TRIP IN
	10:00 - 14:00	4.00	TRP	2	DRLIN2	TRIP BHA AND DRILL PIPE TO SHOE - FILLING EVERY 2 ROWS
	14:00 - 14:30	0.50	BOP	1	DRLIN2	INSTALL RT. HEAD
	14:30 - 15:30	1.00	CIRC	1	DRLIN2	FILL PIPE AND CIRCULATE BOTTOMS UP FROM SHOE -
	15:30 - 16:30	1.00	RIG	6	DRLIN2	CUT DRILL LINE
	16:30 - 17:30	1.00	RIG	1	DRLIN2	SERVICE RIG AND TOP DRIVE - ALSO CHANGED OIL IN TOP DRIVE MOTOR
	17:30 - 18:00	0.50	TRP	2	DRLIN2	TRIP IN TO HOLE
	18:00 - 20:00	2.00	TRP	2	DRLIN2	TRIP IN TO HOLE TO 11000' HIT TIGHT SPOT - COULD NOT WORK THRU DRY
	20:00 - 23:00	3.00	REAM	1	DRLIN2	WASH AND REAM TO BOTTOM - TRIED TO GO TO BOTTOM A NUMBER OF TIMES BUT STACKS OUT - PUT PUMPS ON LINE AND WASHES RIGHT THRU - VERY SELDOM SEEING MORE THAN ON 5K BIT WT. WHEN REAMING DOWN
	23:00 - 06:00	7.00	DRL	1	DRLIN2	DRILL FROM 12001 TO 12092 - HOLE SEEPING 5-7 BBLS PER HOUR - DOING WELL WITH SWEEPS EVERY HOUR
3/14/2008	06:00 - 13:00	7.00	DRL	1	DRLIN2	DRILL FROM 12092 TO 12150 - BIT DIEING WITH NO GOOD DRILLING AVERAGE
	13:00 - 13:30	0.50	CIRC	1	DRLIN2	CIRCULATE WHILE BUILDING PILL
	13:30 - 14:00	0.50	SUR	1	DRLIN2	DROP SURVEY - SURVEY DEPTH 12065 -
	14:00 - 16:30	2.50	REAM	1	DRLIN2	CLEAN HOLE UP WHILE BACKREAMING 12 STANDS OUT
	16:30 - 18:00	1.50	TRP	10	DRLIN2	PUMP TRIP SLUG - BLOW DOWN KELLY AND TRIP OUT
	18:00 - 19:00	1.00	TRP	10	DRLIN2	TRIP OUT TO SHOE
	19:00 - 19:30	0.50	BOP	1	DRLIN2	PULL RT. HEAD
	19:30 - 21:00	1.50	TRP	10	DRLIN2	TRIP OUT TO 2100'
	21:00 - 22:00	1.00	RIG	1	DRLIN2	SERVICE TOP DRIVE - XO LINK TILT CYLINDER
	22:00 - 23:30	1.50	TRP	10	DRLIN2	FINISH TRIP OUT
	23:30 - 00:30	1.00	TRP	1	DRLIN2	DRAIN AND LD MM AND BIT - PICK UP SAME - FUNCTION ALL BOP EQUIPMENT AS PER BLM REQUIREMENTS
	00:30 - 01:00	0.50	CIRC	1	DRLIN2	SURFACE TEST MUD MOTOR
	01:00 - 06:00	5.00	TRP	2	DRLIN2	TRIP IN TO HOLE WITH BIT # 23 - BLM ( CLIFF JOHNSON SHOWED UP TODAY ) GAS US VERBAL EXTENSION TO TD ON BOP TEST - WE ARE 4 DAYS OVER
	06:00 - 08:30	2.50	TRP	2	DRLIN2	TRIP TO ONE STAND FROM BOTTOM - HAD TO WASH THRU AT 10787 AND AT 11025 AND THEN TO BOTTOM
3/15/2008	08:30 - 09:30	1.00	REAM	1	DRLIN2	SAFETY WASH AND REAM ONE STAND TO BOTTOM - NO FILL
	09:30 - 18:00	8.50	DRL	1	DRLIN2	DRILL FROM 12150 TO 12270
	18:00 - 03:30	9.50	DRL	1	DRLIN2	DRILL FROM 12270 TO 12406
	03:30 - 04:00	0.50	CIRC	2	DRLIN2	LOST CIRCULATION - DOWN TO HALF FLOW - WE ALREADY HAVE ONE SHAKER BYPASSED WITH 3% LCM IN SYSTEM - LOST 92 BBLS - PUMP TO 40 BBLS SWEEPS AND EASE BACK TO BOTTOM - FLOW COMING BACK WITH FIRST SWEEP - GOING DIGGING
	04:00 - 06:00	2.00	DRL	1	DRLIN2	DRILL AHEAD WITH LIGHT BIT WT. AND GALLONS DOWN TO 360 GALLONS - DRILL FROM 11406 TO MUD LOGGER HAS NOT SEEN ANY INDICATION THAT WE HAVE VISITED THE CASTLE GATE ZONE, NO SAND AND WE ARE 200' PAST PREDICTION - WILL BE CHATTING WITH GEO. THIS AM
	06:00 - 12:30	6.50	DRL	1	DRLIN2	DRILL FROM 12415 TO 12499
3/16/2008	12:30 - 13:30	1.00	RIG	1	DRLIN2	SERVICE RIG AND TOP DRIVE
	13:30 - 18:00	4.50	DRL	1	DRLIN2	DRILL FROM 12499 TO 12578 - STILL PUMPING SWEEPS - STILL LOSING 7 BBLS PER HOUR - WE NOW ARE DRILLING BACK WITH FULL STROKES
	18:00 - 04:00	10.00	DRL	1	DRLIN2	DRILL FROM 12578 TO 12687 - TORQUE COMING UP - MIXING UP

## Operations Summary Report

Legal Well Name: TU 3-35-7-21ST2  
 Common Well Name: TU 3-35-7-21ST2  
 Event Name: DRILLING  
 Contractor Name: Unit Drilling Co.  
 Rig Name: UNIT

Start: 12/8/2007 Spud Date: 12/5/2007  
 Rig Release: End:  
 Rig Number: 109 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
3/16/2008	18:00 - 04:00	10.00	DRL	1	DRLIN2	COCTAIL IN PILL TANK TO SEE IF I RELIEVE IT - BLACKHAWK MARKER CAME IN AT 12640'
	04:00 - 04:30	0.50	REAM	1	DRLIN2	WASH AND BACK REAM HOLE TO SEE IF IT WOULD RELEASE ANY TORQUE - LOST 100PSI IN TORQUE
	04:30 - 06:00	1.50	DRL	1	DRLIN2	DRILL FROM 12687 TO 12393 - BY 0530 WE WILL BE PUMPING SOME SLICKUM COCTAIL DOWN HOLE TO SEE IF IT HELPS - BLACK HAWK MARKER IN AT 12640 SO POSSIBLE GAS SAND AROUND 12740 - LOSING ANYWHERE FROM 6-9 BBLs PER HOUR - SWEEPS HELPING - NEW INFORMATION NOW IN FROM MUD LOGGER. I GUESS HE RECIECEV A EMAIL AT 1030 WHEN HE WAS IN BED AND DID NOT SEE UNTIL 0430 THIS AM. RUSS AND BOB L. HAVE LOWERED THE ZONES AND ARE SAYING SEGO NOW CAME IN AT 12540 AND CASTLE GATE IN AT 12665 WHICH WOULD HELP ME UNDERSTAND WHY PR IS DROPPING ALONG WITH DIFFERENTIAL. WILL PERSUE FARTHER - THEY ARE MAKING EVERYTHING DEEPER BY 385'.
3/17/2008	06:00 - 18:00	12.00	DRL	1	DRLIN2	DRILL FROM 12693 TO 12786 - PUMPING SWEEPS EVERY HOUR
	18:00 - 19:00	1.00	RIG	1	DRLIN2	SERVICE RIG AND TOP DRIVE
	19:00 - 01:00	6.00	DRL	1	DRLIN2	DRILL FROM 12786 TO 12812 - NOTHING WORKING - BIT DEAD
3/18/2008	01:00 - 02:00	1.00	TRP	10	DRLIN2	TRIP 10 STANDS WET - 2 SMALL TIGHT SPOT BUT WORKED RIGHT ON THRU
	02:00 - 02:30	0.50	CIRC	1	DRLIN2	PUMP PILL AND BLOW DOWN KELLY TO PUMPS
	02:30 - 06:00	3.50	TRP	10	DRLIN2	TRIP OUT IN LOW LOW SO DRILLER CAN KEEP UP - VERY WINDY
	06:00 - 06:30	0.50	TRP	10	DRLIN2	TRIP OUT TO SHOE
	06:30 - 07:00	0.50	BOP	1	DRLIN2	PULL RT. HEAD
	07:00 - 10:00	3.00	TRP	10	DRLIN2	FINISH TRIP OUT - CLEAN SAND TRAP - SHAKER TANK AND #1 PVT TANK
	10:00 - 12:00	2.00	TRP	1	DRLIN2	DRAIN AND LD MM AND BIT - PICK UP SAME - CLEAN FLOOR AND SURFACE TEST MOTOR
	12:00 - 12:30	0.50	TRP	2	DRLIN2	TRIP IN TO HOLE
	12:30 - 13:30	1.00	RIG	1	DRLIN2	SERVICE RIG AND TOP DRIVE - ADJUST BRAKES - REPAIR AIR HOSE ON SPINNERS
	13:30 - 14:00	0.50	BOP	1	DRLIN2	CIRCULATE TRIP SLUG OUTINSTALL RT. HEAD
	14:00 - 15:00	1.00	CIRC	1	DRLIN2	CIRCULATE TRIP SLUG OUT
	15:00 - 18:00	3.00	TRP	2	DRLIN2	TRIP INTO HOLE FILLING EVERY 3 ROWS
	18:00 - 19:00	1.00	TRP	2	DRLIN2	TRIP IN TO HOLE - SMOOTH IN
	19:00 - 20:00	1.00	REAM	1	DRLIN2	SAFETY WASH AND REAM 180' TO BOTTOM - LAST 4' HARD
	20:00 - 06:00	10.00	DRL	1	DRLIN2	DRILL FROM 12812 TO 12900 - WELL SEEPING 3 TO 4 BBLD PER HOUR - STILL IN CASTLEGATE GOING DIRECTLY TO TD - SAND TRAP, SHAKER TANK AND #1 PVT CLEANED - #1 SHAKER BYPASSED WITH #2 SCREENED UP - RUNNING ALL SOLIDS CONTROL EQUIPMENT
3/19/2008	06:00 - 14:30	8.50	DRL	1	DRLIN2	DRILL FROM 12900 TO 12938 - BIT STOPPED
	14:30 - 15:30	1.00	CIRC	1	DRLIN2	CIRCULATE BOTTOM UP
	15:30 - 16:00	0.50	CIRC	1	DRLIN2	PUMP TRIP SLUG AND BLOW DOWN KELLY
	16:00 - 18:00	2.00	TRP	10	DRLIN2	TRIP OUT OF HOLE WITH BIT # 24
	18:00 - 19:00	1.00	TRP	10	DRLIN2	TRIP TO SHOE
	19:00 - 19:30	0.50	BOP	1	DRLIN2	PULL RT HEAD
	19:30 - 22:30	3.00	TRP	10	DRLIN2	FINISH TRIP OUT
	22:30 - 23:30	1.00	TRP	1	DRLIN2	LAY DOWN BIT, MM AND PICK UP SAME
	23:30 - 00:00	0.50	CIRC	1	DRLIN2	SURFACE TEST MOTOR
	00:00 - 03:30	3.50	TRP	2	DRLIN2	TRIP TO SHOE
	03:30 - 04:00	0.50	BOP	1	DRLIN2	INSTALL RT. HEAD

## Operations Summary Report

Legal Well Name: TU 3-35-7-21ST2  
 Common Well Name: TU 3-35-7-21ST2  
 Event Name: DRILLING  
 Contractor Name: Unit Drilling Co.  
 Rig Name: UNIT

Start: 12/8/2007 Spud Date: 12/5/2007  
 Rig Release: End:  
 Rig Number: 109 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
3/19/2008	04:00 - 05:00	1.00	RIG	6	DRLIN2	CUT DRILL LINE
	05:00 - 05:30	0.50	CIRC	1	DRLIN2	CIRCULATE TRIP SLUG TO SURFACE
3/20/2008	05:30 - 06:00	0.50	TRP	2	DRLIN2	TRIP IN TO HOLE WITH IMPREG
	06:00 - 09:00	3.00	TRP	10	DRLIN2	TRIP IN HOLE WITH IMPREG
	09:00 - 09:30	0.50	REAM	1	DRLIN2	WASH 50' TO BOTTOM, NO FILL
	09:30 - 18:30	9.00	DRL	1	DRLIN2	DRILL F/ 12938'-12976', WOB- 8-16K, RPM- 495 COMBINED, GPM- 450, MW- 10.75, VIS- 44, SEEPING 1-2 BBLS/HR
	18:30 - 19:30	1.00	RIG	1	DRLIN2	LUBRICATE RIG & TOP DRIVE, FUNCTION ANNULAR & TOP DRIVE
3/21/2008	19:30 - 06:00	10.50	DRL	1	DRLIN2	DRILL F/ 12976'-13032', WOB- 15-20K, RPM- 495 COMBINED, GPM- 450, MW- 10.8, VIS- 44, SEEPING 2-3 BBLS/HR, PUMPING 20 BBL LCM SWEEPS AS NEEDED. LOST CIRC. @ O550, PUMPED 60 BBLS FROM PREMIX WITH 15% LCM, BYPASSED SHAKERS, MIXING LCM IN ACTIVE PITS TO RAISE LCM TO 15%.
	06:00 - 09:30	3.50	CIRC	2	DRLIN2	LOST CIRCULATION @ 13,030', BYPASS SHAKERS, MIX LCM & BUILD VOLUME, RAISE LCM TO 10% IN ACTIVE PITS, LOST 440 BBLS
	09:30 - 12:00	2.50	DRL	1	DRLIN2	DRILL F/ 13,030'-13,041', WOB- 18-20K, RPM- 480 COMBINED, GPM- 430, MW- 10.8, VIS- 43, LCM- 9%, SEEPING 2-3 BBLS/HR, BG GAS- 225u
	12:00 - 13:00	1.00	RIG	1	DRLIN2	LUBRICATE RIG & TOP DRIVE, FUNCTION TOP PIPE RAMS & COM
	13:00 - 06:00	17.00	DRL	1	DRLIN2	DRILL F/ 13,041'-13,118', WOB- 16-22K, RPM- 475-495 COMBINED, GPM- 428-450, MW- 10.9, VIS- 42, LCM- 9%, BG GAS- 225u, CONN GAS- 1760u, SEEPING 2-3 BBLS/HR
3/22/2008	06:00 - 15:00	9.00	DRL	1	DRLIN2	DRILL F/ 13,118'-13,168', WOB- 16-22K, RPM- 475 COMBINED, GPM- 428, MW- 10.9, VIS- 43, LCM- 9%, SEEPING 2-3 BBLS/HR, BG GAS- 240u
	15:00 - 16:00	1.00	RIG	1	DRLIN2	LUBRICATE RIG & TOP DRIVE, FUNCTION LOWER PIPE RAMS & COM
	16:00 - 06:00	14.00	DRL	1	DRLIN2	DRILL F/ 13,168'- 13,245', WOB- 16-22K, RPM- 475 COMBINED, GPM- 428, MW- 11, VIS- 45, LCM- 8%, SEEPING 2-3 BBLS/HR, BG GAS- 270u, CONN GAS- 3250u
3/23/2008	06:00 - 13:30	7.50	DRL	1	DRLIN2	DRILL F/ 13,245'-13,295', WOB- 18-20K, RPM- 475 COMBINED, GPM- 428, MW- 11, VIS- 44, LCM- 9%, SEEPING 2-3 BBLS/HR, BG GAS- 250u, CONN GAS- 2150u
	13:30 - 14:30	1.00	RIG	1	DRLIN2	LUBRICATE RIG & TOP DRIVE, FUNCTION SUPER CHOKE & COM
	14:30 - 23:00	8.50	DRL	1	DRLIN2	DRILL F/ 13,295'-13,350', DRLG WITH SAME PARAMETERS, MW- 11, VIS- 44, LCM- 9%, SEEPING 2-3 BBLS/HR, BG GAS- 320u
3/24/2008	23:00 - 00:30	1.50	CIRC	1	DRLIN2	CIRCULATE BOTTOMS UP
	00:30 - 03:00	2.50	TRP	14	DRLIN2	SHORT TRIP 21 STDs F/ LOGS
	03:00 - 05:00	2.00	CIRC	1	DRLIN2	CIRCULATE & CONDITION MUD F/ LOGS
	05:00 - 05:30	0.50	SUR	1	DRLIN2	DROP SURVEY & CHECK F/ FLOW
	05:30 - 06:00	0.50	TRP	2	DRLIN2	PUMP TRIP SLUG & TRIP OUT F/ LOGS
	06:00 - 10:00	4.00	TRP	2	DRLIN2	TRIP OUT F/ LOGS TO 6510'
	10:00 - 10:30	0.50	TRP	2	DRLIN2	PULL ROT. HEAD RUBBER
	10:30 - 14:00	3.50	TRP	2	DRLIN2	FINISH TRIPPING OUT F/ LOGS (HOLE FILL 43 BBLS OVER CALCULATED)
	14:00 - 14:30	0.50	TRP	1	DRLIN2	FUNCTION BLIND RAMS, BREAK BIT & LAY DOWN MUD MOTOR
	14:30 - 15:00	0.50	LOG	1	DRLIN2	HOLD PRE JOB SAFETY MEETING WITH HALLIBURTON LOGGERS
	15:00 - 15:30	0.50	LOG	1	DRLIN2	RIG UP LOGGERS
	15:30 - 22:00	6.50	LOG	1	DRLIN2	RUN WIRELINE LOGS, TRIPLE COMBO & SONIC, LOGGERS DEPTH 13,350'
	22:00 - 23:00	1.00	LOG	1	DRLIN2	LAY DOWN LOGGING TOOLS & RIG DOWN LOGGERS
	23:00 - 01:00	2.00	TRP	2	DRLIN2	MAKE UP RR BIT & TRIP IN BHA THEN TRIP BACK OUT TO

## Operations Summary Report

Legal Well Name: TU 3-35-7-21ST2  
 Common Well Name: TU 3-35-7-21ST2  
 Event Name: DRILLING  
 Contractor Name: Unit Drilling Co.  
 Rig Name: UNIT

Start: 12/8/2007  
 Rig Release: Group:  
 Spud Date: 12/5/2007  
 End:  
 Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
3/24/2008	23:00 - 01:00	2.00	TRP	2	DRLIN2	CHANGE BITS TO POSSIBLY DRILL DEEPER
	01:00 - 04:30	3.50	TRP	2	DRLIN2	MAKE UP NEW BIT & TRIP IN, BREAK CIRC. AFTER DC'S THEN EVERY 2000'
3/25/2008	04:30 - 05:30	1.00	TRP	2	DRLIN2	INSTALL ROT. HEAD & CIRC. F/ 20 MIN
	05:30 - 06:00	0.50	TRP	2	DRLIN2	TRIP IN , BREAK CIRC. EVERY 2000'
	06:00 - 09:00	3.00	TRP	2	DRLIN2	TRIP IN, BREAK CIRC. EVERY 2000'
	09:00 - 13:30	4.50	REAM	1	DRLIN2	REAM F/ 12,980'-13,350', WOB- 3-5K, RPM- 65, GPM- 428, MW- 11, VIS- 48, LCM- 9%, BG GAS- 150u, TRIP GAS- 1700u WITH 12' FLARE
	13:30 - 19:00	5.50	DRL	1	DRLIN2	DRILL F/ 13,350'-13,394' , WOB- 5-8K, RPM- 70-90, GPM- 428, MW- 10.9, VIS- 44, LCM- 8%, BG GAS- 175u, CONN GAS- 1050u
	19:00 - 20:00	1.00	RIG	1	DRLIN2	LUBRICATE RIG & TOP DRIVE, FUNCTION HCR & COM
3/26/2008	20:00 - 06:00	10.00	DRL	1	DRLIN2	DRILL F/ 13,394'-13,442', WOB- 7-10K, RPM- 90, GPM- 428, MW- 10.9, VIS- 45, LCM- 8%, SEEPING 2-3 BBLS/HR, BG GAS- 210u, CONN GAS- 1000u (TOP OF KENNILWORTH @ 13,416')
	06:00 - 09:30	3.50	DRL	1	DRLIN2	DRILL F/ 13,442'-13,458', WOB- 6-10K, RPM- 90, GPM- 428, MW- 10.9, VIS- 44, LCM- 8%, BG GAS- 175u, CONN GAS- 2150u, SEEPING 2-3 BBLS/HR
	09:30 - 10:30	1.00	RIG	1	DRLIN2	LUBRICATE RIG & TOP DRIVE, FUNCTION ANNULAR & COM
	10:30 - 16:30	6.00	DRL	1	DRLIN2	DRILL F/ 13,458'-13,490', DRLG WITH SAME PARAMETERS, MW & VIS
	16:30 - 18:30	2.00	CIRC	1	DRLIN2	CIRC. & COND. MUD & MIX TRIP SLUG
	18:30 - 19:30	1.00	RIG	7	DRLIN2	CIRC. & HOLD SAFETY MEETING WITH ROCKY MTN. LAY DOWN CREW & RIG UP LAY DOWN MACHINE
3/27/2008	19:30 - 02:00	6.50	TRP	3	DRLIN2	PUMP TRIP SLUG & LAY DOWN DP
	02:00 - 02:30	0.50	TRP	3	DRLIN2	PULL ROT. HEAD & FILL TRIP TANK
	02:30 - 06:00	3.50	TRP	3	DRLIN2	LAY DOWN DP & HWDP
	06:00 - 08:00	2.00	TRP	1	DRLIN2	LAY DOWN BHA
	08:00 - 09:00	1.00	TRP	1	DRLIN2	PULL WEAR BUSHING
	09:00 - 11:30	2.50	CSG	1	DRLIN2	HOLD SAFETY MEETING & RIG UP ROCKY MTN. CSG CREW
	11:30 - 02:00	14.50	CSG	2	DRLIN2	RUN 7" CSG, FILL & BREAK CIRC. EVERY 1200'
	02:00 - 03:30	1.50	CIRC	1	DRLIN2	LAND CSG, CIRC & RIG DOWN CSG CREW
3/28/2008	03:30 - 06:00	2.50	CIRC	1	DRLIN2	CIRC & COND. MUD F/ CEMENT JOB, GPM- 193, MW- 10.8, VIS- 54, LCM- 6%, HOLE SEEPING 10-12 BBLS/HR, PUMPING 20 BBL SWEEPS WITH 15% LCM EVERY 30 MIN. WILL LOWER VIS TO 42
	06:00 - 09:00	3.00	CIRC	1	DRLIN2	CIRCULATE & CONDITION MUD, LOWER MUD WT TO 10.7 & VIS TO 44
	09:00 - 10:30	1.50	CSG	1	DRLIN2	LAY DOWN LANDING JT., CSG ELEVATORS & BALES
	10:30 - 13:30	3.00	EQT	1	DRLIN2	LAND SUPPORT BUSHING, ENERGIZE LOCKPINS, PACKOFF LOWER SEAL TO 5M, UPPER SEAL TO 10M & VOID TO 5M. INSTALL CEMENT ISOLATION TOOL & ENERGIZE LOCKPINS. RIG UP HALLIBURTON LINES.
	13:30 - 14:00	0.50	CIRC	1	DRLIN2	INSTALL CIRCULATING SWEDGE & BREAK CIRCULATION THRU 2" OUTLETS ON "B" SECTION
	14:00 - 15:00	1.00	CIRC	1	DRLIN2	CIRCULATE BOTTOMS UP, HOLD SAFETY MEETING & RIG UP HALLIBURTON CEMENT HEAD, PRESSURE TEST LINES TO 6000#
	15:00 - 21:00	6.00	CMT	2	DRLIN2	CEMENT CSG (NITRIFIED) 1ST LEAD CEMENT- 420 SX WITH FOAM DENSITY @ 9 PPG, 2ND LEAD CEMENT- 1650 SX WITH FOAM DENSITY @ 11 PPG, TAIL CEMENT- 185 SX @ 14.3 PPG, CAP CEMENT- 200 SX @ 14.6 PPG, RECOVERD 240 BBLS OF CEMENT @ SURFACE, PLUG DID NOT BUMP BUT FLOATS HELD
	21:00 - 22:00	1.00	CMT	1	DRLIN2	RIG DOWN HALLIBURTON & LAY DOWN CEMENT ISOLATION TOOL & LANDING JT.



## Operations Summary Report

Legal Well Name: TU 3-35-7-21ST2  
 Common Well Name: TU 3-35-7-21ST2  
 Event Name: DRILLING  
 Contractor Name: Unit Drilling Co.  
 Rig Name: UNIT

Spud Date: 12/5/2007  
 Start: 12/8/2007  
 End:  
 Rig Release:  
 Group:  
 Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
3/28/2008	22:00 - 06:00	8.00	LOC	7	DRLIN2	EMPTY MUD TANKS USING VAC TRUCKS, CLEAN MUD TANKS, & INSTALL DP SCREEN MANIFOLD ON STANDPIPE.
3/29/2008	06:00 - 12:00	6.00	LOC	7	DRLPRO	CLEAN MUD TANKS
	12:00 - 15:00	3.00	LOC	5	DRLPRO	BUILD BERM ACROSS RESERVE PIT & PREP LOCATION & SET DRYER SHAKER, CATCH TANK & OBM CUTTINGS TANKS
	15:00 - 22:00	7.00	BOP	2	DRLPRO	PRESSURE TEST BOP, 10M HIGH, 250# LOW, ANNULAR- 6500#, CSG- 2500#, FUNCTION TEST ACCUMULATOR
	22:00 - 03:00	5.00	CIRC	6	DRLPRO	FILL MUD TANKS WITH OBM & LOWER MW TO 13.2 PPG, RACK & STRAP 4" DRILL STRING
	03:00 - 04:00	1.00	BOP	2	DRLPRO	INSTALL WEAR BUSHING
3/30/2008	04:00 - 06:00	2.00	RIG	7	DRLPRO	HOLD SAFETY MEETING WITH ROCKY MTN. PICK UP CREW & RIG UP
	06:00 - 06:30	0.50	RIG	7	DRLPRO	HOLD SAFETY MEETING WITH ROCKY MTN. LAY DOWN CREW
	06:30 - 00:30	18.00	TRP	1	DRLPRO	PICK UP 4 3/4" BHA & 4" DP, FILL PIPE EVERY 3000' (TAGGED CEMENT @ 13,375')
	00:30 - 03:00	2.50	DRL	4	DRLPRO	DRILL CEMENT & FLOAT EQUIPMENT F/ 13,375'-13,475' & DISPLACE WATER MUD WITH OBM
	03:00 - 04:00	1.00	RIG	6	DRLPRO	CUT DRLG LINE
	04:00 - 05:00	1.00	RIG	1	DRLPRO	LUBRICATE RIG & TOP DRIVE
	05:00 - 05:30	0.50	DRL	1	DRLPRO	DRILL F/ 13,490'-13,500', WOB- 5K, RPM- 155 COMBINED, GPM- 211, MW- 13, VIS- 58
	05:30 - 06:00	0.50	EQT	2	DRLPRO	CIRC. & FIT TO 16 PPG
	06:00 - 06:30	0.50	EQT	2	DRLPRO	FIT TO 16 PPG EMW @ 13,500', FUNCTIONED TOP PIPE RAMS & HCR
	06:30 - 13:30	7.00	DRL	1	DRLPRO	DRILL F/ 13,500'-13,611', WOB- 8-12K, RPM- 160 COMBINED, GPM- 212, MW- 12.9, VIS- 51, 150u, CONN GAS- 250u, NO LOSSES
3/31/2008	13:30 - 14:00	0.50	RIG	2	DRLPRO	REPAIR POP OFF ON #2 PUMP
	14:00 - 16:00	2.00	DRL	1	DRLPRO	DRILL F/ 13,611'-13,656' (FRACTURED F/ 13,645'-13,655') WOB- 5-12K RPM- 140-160 COMBINED, GPM- 192-212, MW- 12.9, VIS- 50
	16:00 - 17:00	1.00	RIG	1	DRLPRO	LUBRICATE RIG & TOP DRIVE, FUNCTIONED COM
	17:00 - 06:00	13.00	DRL	1	DRLPRO	DRILL F/ 13,656'-13,882', WOB- 10-14K, RPM- 160 COMBINED, GPM- 214, MW- 12.8, VIS- 46, BG GAS- 180u, NO LOSSES
	06:00 - 08:00	2.00	DRL	1	DRLPRO	DRILL F/ 13,882'-13,895', WOB- 10-14K, RPM- 160 COMBINED, GPM- 214, MW- 12.8, VIS- 45, BG GAS- 180u, NO LOSSES
	08:00 - 09:00	1.00	CIRC	1	DRLPRO	CIRC. & MIX TRIP SLUG
	09:00 - 10:00	1.00	SUR	1	DRLPRO	DROP SURVEY, CHECK F/ FLOW & PUMP TRIP SLUG
	10:00 - 10:30	0.50	TRP	10	DRLPRO	PULL 5 STDS & PULL ROT. HEAD
	10:30 - 17:00	6.50	TRP	10	DRLPRO	TRIP OUT F/ BIT #27 (HOLE FILL 23 BBLS OVER CALCULATED)
	17:00 - 18:00	1.00	TRP	1	DRLPRO	BREAK BIT, RETRIEVE SURVEY TOOL & LAY DOWN MUD MOTOR
4/1/2008	18:00 - 19:00	1.00	RIG	1	DRLPRO	LUBRICATE RIG & TOP DRIVE, CLEAN FLOOR F/ TRIP IN
	19:00 - 20:00	1.00	TRP	1	DRLPRO	PICK UP & SURFACE TEST .26 HUNTING MUD MOTOR
	20:00 - 03:00	7.00	TRP	10	DRLPRO	TRIP IN, FILL PIPE PIPE & BREAK CIRC. AFTER BHA THEN EVERY 3000'
	03:00 - 03:30	0.50	TRP	10	DRLPRO	INSTALL ROT. HEAD RUBBER & BREAK CIRC.
	03:30 - 04:00	0.50	TRP	10	DRLPRO	TRIP IN
	04:00 - 05:00	1.00	REAM	1	DRLPRO	WASH 90' TO BOTTOM WITH 3' OF FILL
	05:00 - 06:00	1.00	DRL	1	DRLPRO	DRILL F/ 13,895'-13,900', WOB- 5-8K, RPM- 110 COMBINED, GPM- 214, MW- 13, VIS- 53, BG GAS- 120u, TRIP GAS- 3400 THRU BUSTER, NO FLARE

Form 3160-5  
(November 1994)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or reenter an  
abandoned well. Use Form 3160-3 (APD) for such proposals.

FORM APPROVED  
OMB No. 1004-0135  
Expires July 31, 1996

5. Lease Serial No.

UTU-73681

6. If Indian, Allottee or Tribe Name

N/A

7. If Unit or CA/Agreement, Name and/or No.

TAPADERO UNIT

WONSITS VALLEY UNIT

TU 3-35-7-21

9. API Well No.

43-047-38995

10. Field and Pool, or Exploratory Area

WONSITS VALLEY

11. County or Parish, State

Utah

**SUBMIT IN TRIPLICATE - Other Instructions on reverse side**

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

QUESTAR EXPLORATION & PRODUCTION, CO.

3a. Address

11002 East 17500 South, Vernal, UT 84078

3b. Phone No. (include area code)

435-781-4331

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

810' FNL 1813' FWL, NENW, SECTION 35, T7S, R21E

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <b>TD Change</b>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operations (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once Testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Subsequent to Open hole logging, Geologists have determined that target formation deeper than anticipated. Therefore Questar Exploration & Production Co. requests permission to change the TD from the Approved 17,950' to 18,250'.

APPROVED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS AND MINING

DATE: 4/18/08  
BY: [Signature]

Federal Approval Of This  
Action Is Necessary

**COPY SENT TO OPERATOR**

Date: 4-21-2008

Initials: KS

For Technical Questions Please contact Jim Davidson, Chief Drilling Engineer @ 303-308-3090

14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed)

Laura Bills

Signature

[Signature: Laura Bills]

Title

Associate Regulatory Affairs Analyst

Date

April 17, 2008

**THIS SPACE FOR FEDERAL OR STATE USE**

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or

fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on reverse)

**CONFIDENTIAL**

**NOTICE OF LATE REPORTING  
DRILLING & COMPLETION INFORMATION**

Utah Oil and Gas Conservation General Rule R649-3-6 states that,

- Operators shall submit monthly status reports for each drilling well (including wells where drilling operations have been suspended).

Utah Oil and Gas Conservation General Rule R649-3-21 states that,

- A well is considered completed when the well has been adequately worked to be capable of producing oil or gas or when well testing as required by the division is concluded.
- Within 30 days after the completion or plugging of a well, the following shall be filed:
  - Form 8, Well Completion or Recompletion Report and Log
  - A copy of electric and radioactivity logs, if run
  - A copy of drillstem test reports,
  - A copy of formation water analyses, porosity, permeability or fluid saturation determinations
  - A copy of core analyses, and lithologic logs or sample descriptions if compiled
  - A copy of directional, deviation, and/or measurement-while-drilling survey for each horizontal well

Failure to submit reports in a timely manner will result in the issuance of a Notice of Violation by the Division of Oil, Gas and Mining, and may result in the Division pursuing enforcement action as outlined in Rule R649-10, Administrative Procedures, and Section 40-6-11 of the Utah Code.

---

As of the mailing of this notice, the division has not received the required reports for

Operator: Questar Exploration & Production Co. Today's Date: 04/21/2008

Well: 43 047 38995 API Number: Drilling Commenced:  
TU 3-35-7-21  
7S 21E 35

☒ List Attached

To avoid compliance action, required reports should be mailed within 7 business days to:

Utah Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

If you have questions or concerns regarding this matter, please contact Rachel Medina  
at (801) 538-5260.

cc: Well File  
Compliance File

**NOTICE OF LATE REPORTING  
DRILLING & COMPLETION INFORMATION**

**ATTACHMENT**

Operator: Questar Exploration & Production Co.

Today's Date: 04/21/2008

Well:	API Number:	Drilling Commenced:
WV 5W-36-7-21	4304734099	05/29/2003
WV 4D-12-8-21	4304734268	09/26/2003
WV 3DML 13-8-21	4304737923	09/27/2006
SU 8M-12-7-21	4304736096	03/18/2007
WRU EIH 9CD26-8-22	4304738649	10/03/2007
NBE 12SWD-10-9-23	4304738875	10/22/2007
NBE 8CD-10-9-23	4304739341	10/27/2007
TU 3-35-7-21	4304738995	11/06/2007
WRU EIH 7AD-26-8-22	4304738637	11/19/2007
RW 43-26AG	4304736769	11/26/2007
RW 43-23AG	4304736770	11/26/2007
RW 21-26AD	4304736768	11/27/2007
RW 41-26AG	4304736818	11/28/2007
NBZ 6D-31-8-24	4304737235	12/05/2007
NBZ 4D-31-8-24	4304737236	12/05/2007
NBZ 9D-29-8-24	4304737244	12/05/2007

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir  
Use "APPLICATION FOR PERMIT--" for such proposals

**SUBMIT IN TRIPLICATE**

1. Type of Well

Oil

Gas

☐

Well

☒

Well

☐

Other

2. Name of Operator

**QEP Uinta Basin, Inc.**

3. Address and Telephone No.

**11002 E. 17500 S. Vernal, UT 84078, (435) 781-4331**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

**810 FNL 1813 FWL, SECTION 35, T7S, R21E**

5. Lease Designation and Serial No.

**UTU-73681**

6. If Indian, Allottee or Tribe Name

**NA**

7. If Unit or CA, Agreement Designation

**Stirrup Unit**

8. Well Name and No.

**TU 3-35-7-21**

9. API Well No.

**43047389950000**

10. Field and Pool, or Exploratory Area

**Wonsits Valley**

11. County or Parish, State

**Uintah, UT**

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

☐

Notice of Intent

☐

Subsequent Report

☐

Final Abandonment Notice

TYPE OF ACTION

☐

Abandonment

☐

Recompletion

☐

Plugging Back

☐

Casing Repair

☐

Altering Casing

☒

Other Wildcat tax credit application

☐

Change of Plans

☐

New Construction

☐

Non-Routine Fracturing

☐

Water Shut-Off

☐

Conversion to Injection

☐

Dispose Water

(Note) Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work)

Questar requests that the wildcat tax credit be applied to the TU 3-35-7-21 well. This is the first well in the Mancos / Dakota pool within a one mile radius (see attached map). Offset wells include:

Well Name	API	TD	Formation at TD
- Leota 1-34-2B	43047308790000	13066	Mesaverde

APPROVED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING

DATE: 9/25/08

BY: [Signature]

\* For Mancos, Frontier, Dakota Formations only  
\* See attached Statement of Basis

cc: Tax Commission (emailed)

RECEIVED

JUN 02 2008

DIV. OF OIL, GAS & MINING

14. I hereby certify that the foregoing is true and correct.

Signed

[Signature]

Title

Sr Geologist

Date

29 May 08

(This space for Federal or State office use)

Approved by:

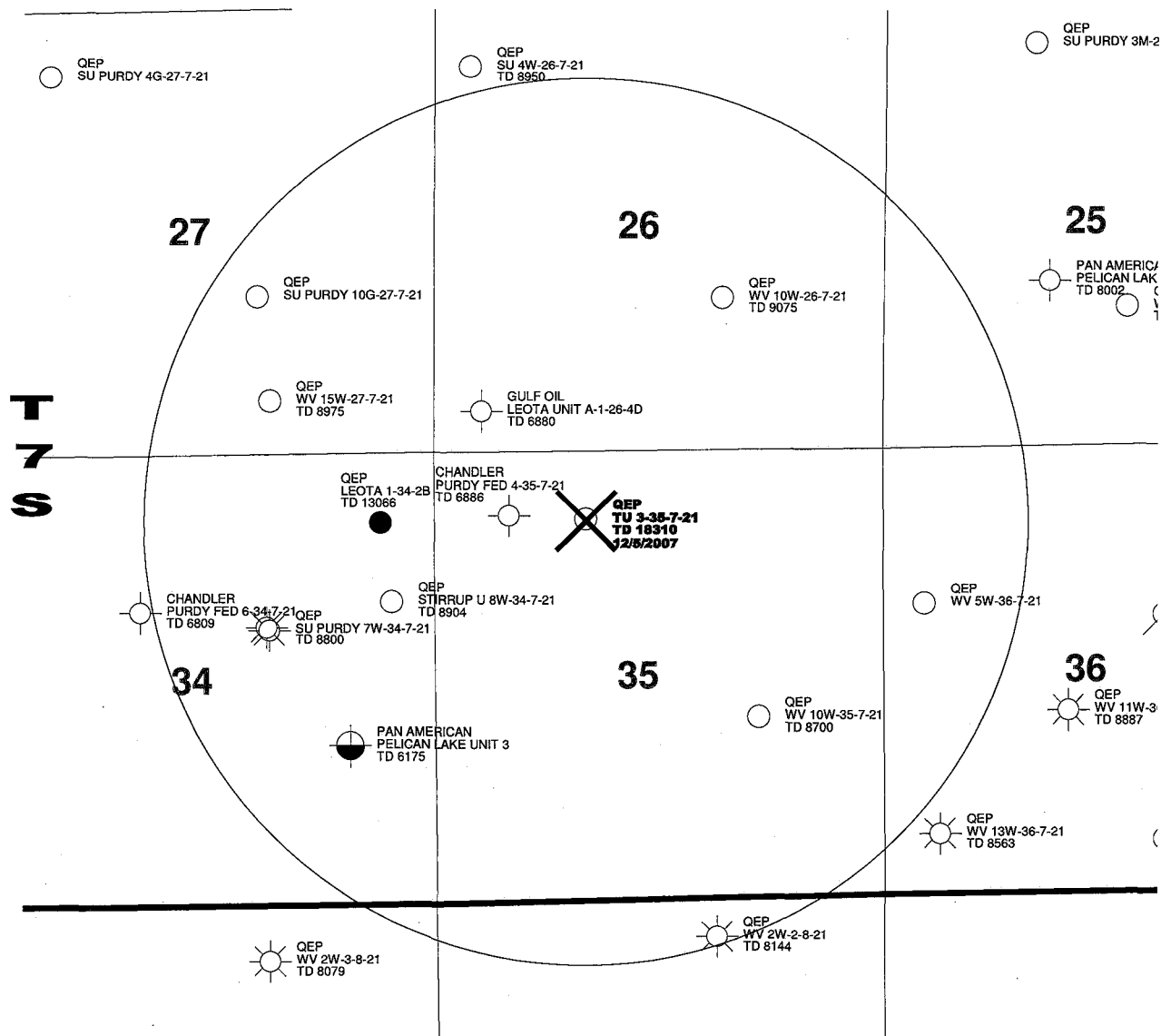
Title

Date

Conditions of approval, if any

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**R 21 E**



**Well Status**

- D&A
- GAS
- LOC
- OIL
- SI

1:24000

1000 0 1000 2000 3000 ft

1050 17<sup>th</sup>, Suite 500  
Denver, Colorado 80265  
303 672-6900

**QUESTAR**  
Exploration  
& Production

**TU 3-35-7-21**

Date: May 08, 2008

Geologist:

Landman:

Geophysicist:

Engineer:

File:...\Uinta\CJO\_RAGTaxCr\TU 3-35.gmp

# Fluid Entry Results

Company: Questar  
Well: TU 3-35-7-21  
Date: 1-Aug-08  
Field:

Metered Rates Gas: .682 mmcf/d  
Water: 320 B/D

NOTE: Only perms that are contributing towards production are listed for brevity. Please see "Data Cover" for a list of all perms.

Reservoir Zone	Perforations Depth (ft)	Gas		Water	
		Surface mmcf/d	%	Surface B/D	%
Wasatch	8401-8403	0.371	39.14%		
Mesa Verde	10022-10023			9.0	2.61%
Mancos	13982-13983			212.0	61.45%
Mancos B	14085-14087			77.0	22.32%
Mancos	14903-14905	0.007	0.74%		
Mancos	15621-15622	0.125	13.19%		
Mancos	16250-16251	0.024	2.53%		
Frontier	16830-16832	0.042	4.43%		
Frontier	17402-17404	0.072	7.59%		
Dakota Silt	17794-17795	0.206	21.73%		
Dakota SS	18000-18002	0.089	9.39%		
Dakota C	18128-18132	0.012	1.27%	47.0	13.62%

Total: .948 mmcf/d 100% 345 B/D 100%



DIVISION OF OIL, GAS AND MINING  
**Wildcat Well Determination**  
**STATEMENT OF BASIS**

**Applicant:** QEP Uinta Basin, Inc.

**Location:** NENW Sec. 35 T7S, R21E, Uintah County, Utah

**WELL NAME:** TU 3-35-7-21 **API #:** 43-047-38995

**FINDINGS**

1. This well was completed in May 2008 in the Wasatch, Mesa Verde, Mancos, Frontier and Dakota formations.
2. This well was > 1 mile from any known production in the Mesa Verde, Mancos, Frontier and Dakota Formations at the time of the completion and the start of commercial production.
3. This well is approximately 4004' from the SU PURDY 7W-34-7-21 that also produces from the Wasatch formation.
4. A production log was run on 1 August, 2008 that attributed production in the following amounts for each formation: Wasatch 39%, Mesa Verde 0%, Mancos 17%, Frontier 12%, Dakota 32%.

**CONCLUSIONS**

Based on the findings above the Division has determined the TU 3-35-7-21 well was drilled into an unknown area for the **Mancos, Frontier and Dakota formations**. The Division finds that this well qualifies for the severance tax exemption under Section 59-5-102(2)(d) for wildcat wells for the above formations only. The Division recommends the percent of production attributed to these formations (61%) from the production log run on 1 August, 2008 be used as the amount of production that qualifies for the wildcat tax credit. This determination was made in accordance with Oil and Gas General Conservation Rule R649-3-35. If the operator disagrees with this determination, the decision may be appealed to the Board of Oil Gas and Mining.

Reviewer(s): Dustin K. Doucet 

Date: 9/25/2008

Joshua J. Payne

Date: August 21, 2008

CC: Utah State Tax Commission  
ATTN: Ken Petersen

ATTACHMENT A														
1 Mile Area of Review														
API	WELL NAME	Well Status	QTR	Sect	Town	Range	Cum Oil	Cum Gas	Field Type	Dx From Well(ft)	Rotary Spud	Date TD Reached	Date First Produced	Producing Formation
4304739181	SU PURDY 10G-27-7-21	APD	NWSE	27	070S	210E	0	0	E	4755				Green River (P)
4304738995	TU 3-35-7-21	DRL	NENW	35	070S	210E	96	19930	D	0			5/7/2008	Wasatch-Mesa Verde-Mancos-Frontier-Dakota
4304734707	STIRRUP U 8W-34-7-21	LA	SENE	34	070S	210E	0	0	D	2557				Wasatch
4304734397	WV 10W-35-7-21	LA	NWSE	35	070S	210E	0	0	E	3141				Wasatch
4304734385	WV 15W-27-7-21	LA	SWSE	27	070S	210E	0	0	E	4038				Wasatch
4304734383	WV 10W-26-7-21	LA	NWSE	26	070S	210E	0	0	E	3069				Wasatch
4304734380	SU PURDY 7W-34-7-21	SGW	SWNE	34	070S	210E	748	18310	E	4004	4/4/2002	4/20/2002	6/11/2002	Wasatch
4304734099	WV 5W-36-7-21	DRL	SWNW	36	070S	210E	0	0	E	4154	5/29/2003			Wasatch
4304734034	WV 2W-2-8-21	PGW	NWNE	02	080S	210E	718	77647	E	5238	8/17/2001	9/7/2001	9/28/2001	Wasatch
4304732788	PURDY FED 4-35-7-21	PA	NWNW	35	070S	210E	0	0	E	885		1/15/1997		Wasatch
4304732177	FEDERAL 1-35HB	LA	NWNW	35	070S	210E	0	0	W	885				Green River
4304731120	LEOTA UNIT "A" 1-35-1D	LA	SWNW	35	070S	210E	0	0		1387				Wasatch
4304731119	LEOTA UNIT A-1-27-3D	LA	SWSE	27	070S	210E	0	0	W	3942				Wasatch
4304731117	LEOTA UNIT A-2-26-1D	LA	SWNW	26	070S	210E	0	0	W	4384				Wasatch
4304730997	LEOTA UNIT A-1-26-4D	PA	SWSW	26	070S	210E	0	0	W	1870				Wasatch
4304730879	LEOTA 1-34-2B	POW	NENE	34	070S	210E	137305	53842		2418		4/20/1981	8/30/1981	Wasatch
4304710876	PELICAN LAKE UNIT 3	PA	NESE	34	070S	210E	0	0		3947		6/24/1964		Green River

wasatch - 39.14  
 MURD - 0  
 MANCOS - 16.46  
 FRONTIER - 12.02  
 DKFA - 32.39

HYMENDEL

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir  
Use "APPLICATION FOR PERMIT--" for such proposals

**SUBMIT IN TRIPLICATE**

1. Type of Well

Oil

Gas

☐

Well

☒

Well

☐

Other

2. Name of Operator

**QUESTAR EXPLORATION & PRODUCTION CO.**

3. Address and Telephone No.

**11002 E. 17500 S. - Vernal, UT 84078**

**Contact: Dahn.Caldwell@questar.com**

**435-781-4342 Fax 435-781-4357**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

**810' FNL, 1813' FWL, NENW, SEC 35-T7S-R21E**

5. Lease Designation and Serial No.

**UTU-73681**

6. If Indian, Allottee or Tribe Name

**N/A**

7. If Unit or CA, Agreement Designation

**STIRRUP UNIT**

8. Well Name and No.

**TU 3-35-7-21**

9. API Well No.

**43-047-38995**

10. Field and Pool, or Exploratory Area

**UNDESIGNATED**

11. County or Parish, State

**UINTAH**

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

☐

Notice of Intent

☒

Subsequent Report

☐

Final Abandonment Notice

TYPE OF ACTION

☐

Abandonment

☐

Recompletion

☐

Plugging Back

☐

Casing Repair

☐

Altering Casing

☒

Other **SPUD**

☐

Change of Plans

☐

New Construction

☐

Non-Routine Fracturing

☐

Water Shut-Off

☐

Conversion to Injection

☐

Dispose Water

(Note) Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work)

**On 11/6/07 - Drilled 80' of 26" conductor hole. Set 80' of 20" conductor pipe. Cmtd w/ Ready Mix.**

**On 12/5/07 - Drilled 17-1/2" hole to 570'. Set 12 jts 13-3/8", 54.5# J-55, ST&C csg @ 536'. Cemented w/ 500 sxs Premium Cmt.**

**3 - BLM, 2- Utah OG&M, 1 - Denver, 1 - file Word file-server**

14. I hereby certify that the foregoing is true and correct.

Signed

**Dahn F. Caldwell**

Title

**Office Administrator II**

Date

**11/6/07**

(This space for Federal or State office use)

Approved by:

Title

Conditions of approval, if any

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**RECEIVED**

**JUN 16 2008**

**DIV. OF OIL, GAS & MINING**

**NOTICE OF LATE REPORTING  
DRILLING & COMPLETION INFORMATION**

Utah Oil and Gas Conservation General Rule R649-3-6 states that,

- Operators shall submit monthly status reports for each drilling well (including wells where drilling operations have been suspended).

Utah Oil and Gas Conservation General Rule R649-3-21 states that,

- A well is considered completed when the well has been adequately worked to be capable of producing oil or gas or when well testing as required by the division is concluded.
- Within 30 days after the completion or plugging of a well, the following shall be filed:
  - Form 8, Well Completion or Recompletion Report and Log
  - A copy of electric and radioactivity logs, if run
  - A copy of drillstem test reports,
  - A copy of formation water analyses, porosity, permeability or fluid saturation determinations
  - A copy of core analyses, and lithologic logs or sample descriptions if compiled
  - A copy of directional, deviation, and/or measurement-while-drilling survey for each horizontal well

Failure to submit reports in a timely manner will result in the issuance of a Notice of Violation by the Division of Oil, Gas and Mining, and may result in the Division pursuing enforcement action as outlined in Rule R649-10, Administrative Procedures, and Section 40-6-11 of the Utah Code.

---

As of the mailing of this notice, the division has not received the required reports for

Operator: QUESTAR EXPLORATION & PRODUCTION CO

Today's Date: 06/27/2008

Well:

43 047 38995  
TU 3-35-7-21  
7S 21E 35

API Number:

Drilling Commenced:

☒ List Attached

To avoid compliance action, required reports should be mailed within 7 business days to:

Utah Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

If you have questions or concerns regarding this matter, please contact Rachel Medina  
at (801) 538-5260.

cc: Well File  
Compliance File

**NOTICE OF LATE REPORTING  
DRILLING & COMPLETION INFORMATION**

**ATTACHMENT**

Operator: QUESTAR EXPLORATION & PRODUCTION CO

Today's Date: 06/27/2008

Well:	API Number:	Drilling Commenced:
TU 3-35-7-21	4304738995	11/06/2007
WV 11AD-14-8-21	4304738049	11/17/2007
NBE 8BD-26-9-23	4304739351	12/27/2007
NBE 10CD-17-9-23	4304739349	01/09/2008
CWU 16D-32-8-24	4304737278	01/10/2008
RWS 8D-5-9-24	4304737307	01/11/2008
RWS 14D-5-9-24	4304737310	01/11/2008
NBZ 11D-29-8-27	4304737240	01/13/2008
NBZ 5D-29-8-24	4304737241	01/13/2008
NBZ 4D-30-8-24	4304737229	01/14/2008
NBZ 12D-30-8-24	4304737233	01/14/2008
SCS 10C-16-15-19	4304739683	01/15/2008
WRU EIH 4AD-25-8-22	4304738636	01/21/2008
RW 04-25B	4304736982	02/05/2008
NBZ 15ML-29-8-24	4304737246	02/06/2008
RWS 16ML-5-9-24	4304737311	02/06/2008
NBZ 10ML-30-8-24	4304737232	02/07/2008
NBZ 14ML-30-8-24	4304737234	02/07/2008
FR 13P-20-14-20	4304739226	02/16/2008

CONFIDENTIAL

Form 3160-4  
(November 1983)  
(formerly 9-330)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE

(See other in-  
structions on  
reverse side).

Form approved.  
Budget Bureau No. 1004-0137  
Expires August 31, 1985

WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

1a. TYPE OF WELL OIL WELL ☐ GAS WELL ☒ DRY ☐ Other \_\_\_\_\_  
b. TYPE OF COMPLETION NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR ☐ Other \_\_\_\_\_

2. NAME OF OPERATOR  
QUESTAR EXPLORATION & PRODUCTION CO.

3. ADDRESS OF OPERATOR DAHN CALDWELL  
11002 E. 17500 S. VERNAL, UT 84078-8526 435-781-4342

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*

At surface 810' FNL, 1813' FWL, SEC 35-T7S-R21E

At top rod. interval reported below 810' FNL, 1813' FWL, SEC 35-T7S-R21E

At total depth 810' FNL, 1813' FWL, SEC 35-T7S-R21E

14. PERMIT NO.  
43-047-38995

DATE ISSUED

12. COUNTY OR PARISH  
UINTAH

13. STATE  
UT

15. DATE SPURRED  
11/06/07

16. DATE T.D. REACHED  
4/19/08

17. DATE COMPL. (Ready to prod.)  
5/24/08

18. ELEVATIONS (DF, RKB, RT, GR, ETC.)\*  
KB

19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD  
18,280'

21. PLUG BACK T.D., MD & TVD  
18,251'

22. IF MULTIPLE COMPL.,  
HOW MANY\*

23. INTERVALS  
DRILLED BY

ROTARY TOOLS  
X

CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*

SEE ATTACHMENT ONE

25. WAS DIRECTIONAL  
SURVEY MADE  
YES

26. TYPE ELECTRIC AND OTHER LOGS RUN *OH COMP SONIC MUD LOG - GR / CMP NEUTR GR / COL*  
CBL/GR TEMP & SPECTRAL DENSITY DUAL SPACED NEUTRON ARRAY COMP TRUE RESISTIVITY

27. WAS WELL CORED  
NO

CASING RECORD (Report all strings set in well)					
CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13-3/8"	54.5#	536'	17-1/2"	500 SXS	
9-5/8"	47#	6523'	12-1/4"	2760 SXS	
7"	26# & 29#	13,475'	8-1/2"	2455 SXS	
4-1/2"	15.1#	18,265'	6-1/8"	780 SXS	

LINER RECORD				TUBING RECORD		
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SIZE	DEPTH SET (MD)	PACKER SET (MD)
N/A				N/A		

31. PERFORATION RECORD (Interval, size and number)  
SEE ATTACHMENT ONE

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
SEE ATTACHMENT ONE	SEE ATTACHMENT ONE

33* PRODUCTION							
DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)				WELL STATUS (Producing or shut-in)	
5/24/08		FLOWING				PRODUCING	
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N FOR TEST PERIOD	OIL—BBL.	GAS—MCF	WATER—BBL.	GAS-OIL RATIO
6/2/08	24	24		52	1930	1025	
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF	WATER—BBL.	OIL GRAVITY-API (CORR.)	
N/A	1,200						

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)  
SOLD

TEST WITNESSED BY

35. LIST OF ATTACHMENTS  
PERFORATION DETAIL ATTACHMENT ONE

36. I hereby certify that the foregoing and attached information is complete and correct as determined from available records

SIGNED JIM SIMONTON

COMPLETION SUPERVISOR

DIV. OF OIL, GAS & MINING  
DATE 8/14/08

(See Instructions and Spaces for Additional Data on Reverse Side)

RECEIVED  
AUG 19 2008

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
WASATCH	6964'		
MESA VERDE	9842'		
CASTLE GATE	12750'		
BLACKHAWK	13119'		
MANCOS	13650'		
MANCOS 'B'	14079'		
FRONTIER	16843'		
DAKOTA SILT	17787'		
DAKOTA	17999'		
MORRISON	18242'		
TD	18280'		

38. GEOLOGIC MARKERS  
TU 3-35-7-21

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH
WASATCH	6964'	
MESA VERDE	9842'	
CASTLE GATE	12750'	
BLACKHAWK	13119'	
MANCOS	13650'	
MANCOS 'B'	14079'	
FRONTIER	16843'	
DAKOTA SILT	17787'	
DAKOTA	17999'	
MORRISON	18242'	
TD	18280'	

CONFIDENTIAL



# **TU 3-35-7-21 - ATTACHMENT ONE**

## **PERFORATION DETAIL:**

Open Perfs	Stimulation					Perf Status
8401' – 8403'	Frac w/	70,876	Lbs in	40,446	Gals	Open – Wasatch
8704' – 8705'						Open – Wasatch
8958' – 8960'						Open – Wasatch
8981' – 8983'						Open – Wasatch
9294' – 9296'						Open – Wasatch
9302' – 9304'						Open – Wasatch
10022' – 10023'	Frac w/	40,672	Lbs in	85,596	Gals	Open – Mesa Verde
10026' – 10027'						Open – Mesa Verde
10029' – 10030'						Open – Mesa Verde
10374' – 10375'						Open – Mesa Verde
10376' – 10377'						Open – Mesa Verde
10378' – 10379'						Open – Mesa Verde
10772' – 10773'	Frac w/	60,231	Lbs in	108,360	Gals	Open – L Mesa Verde
10776' – 10777'						Open – L Mesa Verde
10783' – 10784'						Open – L Mesa Verde
11052' – 11054'						Open – L Mesa Verde
11076' – 11077'						Open – L Mesa Verde
11256' – 11257'						Open – L Mesa Verde
11265' – 11266'						Open – L Mesa Verde
11274' – 11276'						Open – L Mesa Verde
11283' – 11285'						Open – L Mesa Verde
11740' – 11741'	Frac w/	50,360	Lbs in	101,724	Gals	Open – L Mesa Verde
11753' – 11754'						Open – L Mesa Verde
11761' – 11762'						Open – L Mesa Verde
11914' – 11915'						Open – L Mesa Verde
11917' – 11918'						Open – L Mesa Verde
11921' – 11922'						Open – L Mesa Verde
13229' – 13233'	Frac w/	70,358	Lbs in	135,702	Gals	Open - Blackhawk
13284' – 13286'						Open - Blackhawk
13304' – 13305'						Open - Blackhawk
13388' – 13389'						Open - Mancos
13420' – 13421'						Open - Mancos
13501' – 13502'						Open - Mancos
13555' – 13556'						Open - Mancos
13652' – 13653'						Open - Mancos
13736' – 13737'						Open - Mancos
13801' – 13802'						Open - Mancos

CONFIDENTIAL

13916' – 13918'	}	Frac w/	47,302	Lbs in	103,950	Gals	Open - Mancos
13982' – 13983'							Open - Mancos
14027' – 14028'							Open - Mancos
14085' – 14087'							Open - Mancos 'B'
14145' – 14146'							Open - Mancos 'B'
14209' – 14210'							Open - Mancos
14299' – 14300'							Open - Mancos
14365' – 14366'							Open - Mancos
14473' – 14474'							Open - Mancos
14535' – 14536'							Open - Mancos
14600' – 14602'							Open - Mancos
14712' – 14714'	}	Frac w/	30,997	Lbs in	81,228	Gals	Open - Mancos
14771' – 14772'							Open - Mancos
14848' – 14849'							Open - Mancos
14903' – 14905'							Open - Mancos
14941' – 14942'							Open - Mancos
15018' – 15019'							Open - Mancos
15096' – 15097'							Open - Mancos
15157' – 15158'							Open - Mancos
15224' – 15226'							Open - Mancos
15298' – 15300'							Open - Mancos
15415' – 15417'	}	Frac w/	40,152	Lbs in	91,812	Gals	Open - Mancos
15445' – 15446'							Open - Mancos
15502' – 15503'							Open - Mancos
15555' – 15557'							Open - Mancos
15621' – 15622'							Open - Mancos
15699' – 15700'							Open - Mancos
15766' – 15768'							Open - Mancos
15870' – 15871'							Open - Mancos
15925' – 15926'							Open - Mancos
15982' – 15984'							Open - Mancos
16092' – 16094'	}	Frac w/	29,096	Lbs in	98,364	Gals	Open - Mancos
16181' – 16182'							Open - Mancos
16207' – 16208'							Open - Mancos
16250' – 16251'							Open - Mancos
16297' – 16298'							Open - Mancos
16355' – 16356'							Open - Mancos
16424' – 16426'							Open - Mancos
16483' – 16484'							Open - Mancos
16522' – 16523'							Open - Mancos
16677' – 16678'							Open - Mancos
16727' – 16729'							Open - Mancos

CONFIDENTIAL

16830' – 16832'	}						Open - Frontier
16915' – 16917'							Open - Frontier
16969' – 16970'							Open - Frontier
17052' – 17054'							Open - Frontier
17129' – 17131'		Frac w/	41,690	Lbs in	125,538	Gals	Open - Frontier
17191' – 17192'							Open - Frontier
17309' – 17311'							Open - Frontier
17402' – 17404'							Open - Frontier
17512' – 17514'	}						Open - Frontier
17556' – 17557'							Open - Frontier
17613' – 17614'							Open - Frontier
17676' – 17678'							Open - Frontier
17794' – 17795'		Frac w/	3,112	Lbs in	39,144	Gals	Open – Dakota Silt
17863' – 17864'							Open – Dakota Silt
17876' – 17878'							Open – Dakota Silt
17933' – 17935'							Open – Dakota Silt
18000' – 18002'							Open – Dakota SS
18114' – 18116'	}						Open – Dakota 'C'
18128' – 18132'							Open – Dakota 'C'
18164' – 18166'							Open – Dakota 'C'
18193' – 18195'		Frac w/	15,000	Lbs in	58,590	Gals	Open – Dakota 'C'
18220' – 18222'							Open – Dakota 'C'
18235' – 18237'							Open – Dakota 'C'

CONFIDENTIAL

## Deviation Summary

Well Name: TU 3-35-7-21ST2

TMD: 12,065.0 (ft)

TVD: 12,059.55 (ft)

Location: 35- 7-S 21-E 26

Spud Date: 12/5/2007

Closure Distance: 219.2 (ft)

Closure Direction: 139.04 (°)

Calculation Method: Minimum Curvature

S/T #	TMD (ft)	Angle (°)	Azimuth (°)	CTM	TVD (ft)	N/-S (ft)	E/-W (ft)	Vert. Section (ft)	DLS (°/100ft)	S/T # OH 01	V.S. AZI (°) 0.00 0.00
										BUR (°/100ft)	Type
OH	0.0	0.00	0.00	NYN	0.00	0.00	0.00	0.00	0.00	0.00	
OH	1,790.0	0.60	157.00	YNN	1,789.97	-8.63	3.66	-8.63	0.03	0.03	MSS
01	712.0	0.10	217.10	NYN	712.00	-0.50	-0.37	-0.50	0.00	0.00	MWD
01	790.0	1.00	79.40	YNN	790.00	-0.43	0.26	-0.43	1.38	1.15	MWD
01	853.0	1.50	82.10	YNN	852.98	-0.21	1.62	-0.21	0.80	0.79	MWD
01	915.0	2.00	69.40	YNN	914.95	0.28	3.43	0.28	1.02	0.81	MWD
01	976.0	2.80	71.40	YNN	975.90	1.13	5.84	1.13	1.32	1.31	MWD
01	1,006.0	2.50	70.80	YNN	1,005.87	1.58	7.15	1.58	1.00	-1.00	MWD
01	1,033.0	2.90	68.10	YNN	1,032.84	2.02	8.34	2.02	1.55	1.48	MWD
01	1,068.0	3.30	69.00	YNN	1,067.78	2.72	10.10	2.72	1.15	1.14	MWD
01	1,099.0	3.50	65.80	YNN	1,098.73	3.42	11.80	3.42	0.89	0.65	MWD
01	1,130.0	3.60	63.80	YNN	1,129.67	4.24	13.54	4.24	0.51	0.32	MWD
01	1,160.0	3.90	61.20	YNN	1,159.61	5.15	15.28	5.15	1.15	1.00	MWD
01	1,223.0	4.00	60.80	YNN	1,222.46	7.25	19.07	7.25	0.16	0.16	MWD
01	1,286.0	4.40	59.00	YNN	1,285.29	9.57	23.06	9.57	0.67	0.63	MWD
01	1,348.0	4.00	61.60	YNN	1,347.12	11.82	27.00	11.82	0.71	-0.65	MWD
01	1,411.0	3.50	59.40	YNN	1,409.99	13.85	30.59	13.85	0.83	-0.79	MWD
01	1,473.0	2.90	56.60	YNN	1,471.89	15.67	33.53	15.67	1.00	-0.97	MWD
01	1,535.0	2.50	58.30	YNN	1,533.82	17.25	35.99	17.25	0.66	-0.65	MWD
01	1,596.0	1.90	53.80	YNN	1,594.77	18.54	37.94	18.54	1.02	-0.98	MWD
01	1,656.0	2.00	56.80	YNN	1,654.74	19.70	39.61	19.70	0.24	0.17	MWD
01	1,719.0	1.30	54.00	YNN	1,717.71	20.73	41.11	20.73	1.12	-1.11	MWD
01	3,763.0	0.60	184.70	YNN	3,761.55	23.69	59.00	23.69	0.09	-0.03	MSS
01	4,350.0	2.20	177.10	YNN	4,348.36	9.37	59.31	9.37	0.27	0.27	MSS
01	5,185.0	0.60	175.70	YNN	5,183.08	-10.99	60.45	-10.99	0.19	-0.19	MSS
01	5,901.0	2.00	158.00	YNN	5,898.88	-26.32	65.41	-26.32	0.20	0.20	MSS
01	6,469.0	2.20	132.40	YNN	6,466.51	-42.86	77.18	-42.86	0.17	0.04	MSS
01	6,469.0	2.20	132.40	YNN	6,466.51	-42.86	77.18	-42.86	0.00	0.00	MSS
01	7,814.0	0.40	197.80	YNN	7,811.15	-64.74	94.81	-64.74	0.15	-0.13	MSS
01	8,065.0	1.70	151.50	YNN	8,062.10	-68.85	96.32	-68.85	0.58	0.52	MSS
01	9,318.0	2.40	155.90	YNN	9,314.29	-109.13	115.90	-109.13	0.06	0.06	MSS
01	10,788.0	1.80	156.70	YNN	10,783.30	-158.43	137.60	-158.43	0.04	-0.04	MSS
01	11,706.0	1.40	169.00	YNN	11,700.94	-182.68	145.44	-182.68	0.06	-0.04	MSS

## Deviation Summary

Well Name: TU 3-35-7-21ST2

Location: 35- 7-S 21-E 26

TMD: 12,065.0 (ft)

TVD: 12,059.55 (ft)

Spud Date: 12/5/2007

Calculation Method: Minimum Curvature

Closure Distance: 219.2 (ft)

Closure Direction: 139.04 (°)

S/T #

V.S. AZI (°)

OH

0.00

Q1

0.00

S/T #	TMD (ft)	Angle (°)	Azimuth (°)	CTM	TVD (ft)	N/-S (ft)	E/-W (ft)	Vert. Section (ft)	DLS (°/100ft)	BUR (°/100ft)	Type
02	11,373.0	2.33	171.22	YNN	0.00	0.00	0.00	0.00	0.00	0.00	MWD
02	10,788.0	1.80	156.70	NYN	10,783.30	-158.43	137.60	0.00	0.00	0.00	MSS
02	11,373.0	2.33	171.22	YNN	11,367.92	-178.62	143.05	-178.62	0.13	0.09	MWD
02	11,409.0	1.80	177.55	YNN	11,403.90	-179.91	143.19	-179.91	1.60	-1.47	MWD
02	11,422.0	1.45	179.74	YNN	11,416.89	-180.28	143.19	-180.28	2.73	-2.69	MWD
02	11,432.0	1.10	183.35	YNN	11,426.89	-180.50	143.19	-180.50	3.59	-3.50	MWD
02	11,442.0	0.75	193.10	YNN	11,436.89	-180.66	143.17	-180.66	3.83	-3.50	MWD
02	11,472.0	0.35	316.06	YNN	11,466.89	-180.78	143.06	-180.78	3.28	-1.33	MWD
02	11,502.0	1.14	355.35	YNN	11,496.89	-180.42	142.97	-180.42	2.99	2.63	MWD
02	11,532.0	2.15	356.93	YNN	11,526.87	-179.56	142.92	-179.56	3.37	3.37	MWD
02	11,562.0	3.03	359.74	YNN	11,556.84	-178.21	142.89	-178.21	2.96	2.93	MWD
02	11,596.0	3.25	359.13	YNN	11,590.79	-176.34	142.87	-176.34	0.65	0.65	MWD
02	11,628.0	3.25	359.74	YNN	11,622.74	-174.53	142.85	-174.53	0.11	0.00	MWD
02	11,660.0	3.08	358.50	YNN	11,654.69	-172.76	142.82	-172.76	0.57	-0.53	MWD
02	11,693.0	2.55	358.60	YNN	11,687.65	-171.14	142.78	-171.14	1.61	-1.61	MWD
02	12,065.0	0.90	156.80	YNN	12,059.55	-165.55	143.73	-165.55	0.91	-0.44	MSS

## Operations Summary Report - DRILLING

Well Name: TU 3-35-7-21ST2

Location: 35- 7-S 21-E 26

Rig Name: UNIT

Spud Date: 12/5/2007

Rig Release: 4/26/2008

Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
12/5/2007	17:30 - 06:00	12.50	DRL	1	RIG UP & DRILL 17.5 SURFACE HOLE F/ 80'-570'
	06:00 - 09:00	3.00	CSG	6	LAY DOWN DRILL STRING & RUN 13 3/8" CSG
	09:00 - 12:00	3.00	CMT	2	RIG UP & CEMENT CSG WITH 500 SX OF PREMIUM CEMENT, RECOVERED 54 BBLs OF CEMENT TO SURFACE, PLUG PUMPED, FLOATS DID NOT HOLD, SHUT IN WITH 200 # & WOC
12/11/2007	06:00 - 18:00	12.00	LOC	4	PREPAIR DERRICK FOR LAYING DOWN - WORK ON WIND WALLS AND RIGGING DOWN FLOOR - RIG DOWN TOP DRIVE MOTOR PACKAGE - RIG DOWN ACC. FROM SUIT CASE - TRUCKS HAULED ALL OF THE 4" DRILL PIPE AND 4 LOADS OF 5" DP. - ALL TRUCKS ARE CHAINED UP - USING OUR FORKLIFT ON RIG SIDE AND THERES ON OTHER LOCATION
	18:00 - 06:00	12.00	LOC	4	CLEAN SUBS ALL NIGHT - TEAR PUMPS APART FOR RIG MOVE AND CHECK ALL PARTS FOR WASH AND OR CRACKS - SNOWED 5 INCHES ON LOCATION LAST NIGHT - PLAN TO GET 5" HAULED OUT THIS MORNING - WHILE DERRICK IS UP WE WILL HAVE CRANE OVER DOING BUSTER EQUIPMENT AND SOLIDS CONTROL WHILE WE WAIT FOR PIPE TO MOVED
12/12/2007	06:00 - 18:00	12.00	LOC	4	RIG DOWN GENERAL - REBLADE ROAD AND LOCATION AFTER IT SNOWED AGAIN - MOVE AND SET SHACKS - DIG UP POWER CORD TO TRANSFORMER AS LAST 15' FROZE SOLID IN PIPE - FINISH HAULING 5" DP - MOVE TOP DRIVE POWER UNIT AND DIG UP BURIED FLARE LINES AND RE FILL HOLE - REMOVE OIL BASE SAFETY PROTECTION LINERS AND SET ON SIDE OF LOCATION - LOWER DERRICK - SHUT IN BOILER AND BLOW ALL LINES - UNSTRING POER CORDS TO DRAWWORKS - KILL GENERATORS - RIG DOWN BAR HOPPERS - AND HOPPER HOUSE - HAUL AWAY 400 BBL TANKS - MUD VAC SYSTEM - DARK AT 1700
12/13/2007	18:00 - 06:00	12.00	LOC	4	WAIT ON DAY LIGHTS
	06:00 - 18:00	12.00	LOC	4	REBLADE ROAD TO NEW LOCATION - BACK END OF RIG MOVED OUT - SUCTION TANK AND DRAWWORKS SET ON NEW LOCATION FOR REPAIRS - RIG NOW ON FOUR LOCATIONS WITH 50% ON NEW LOCATION - 85% RIGGED DOWN - DERRICK STILL ON FLOOR - LOCATION BOTTOM FELL APART - HAD CRANE AND BOTH BIG BOB-TAIL TRUCKS STUCK MULTIPLE TIMES - WHEN DROVE BACK ON LOCATION AT 1530 CRANE WAS STUCK - 8 HANDS WACHTING UNTIL WE HAD A DONKEY CHEWING MEETING THEN HAD A MEETING WITH TOOL PUSHER WHO WAS KNEE DEEP IN MUD HELPING ON THE OTHER SIDE OF RIG - WE WILL CUT CONDUCTOR AND PREP CASING FOR A SECTION THIS MORNING, WILL NOT WELD UNTIL MATS AND BOTTOM SUBS SET AND CENTERED WHICH HOPEFULLY WILL BE LATE TONIGHT - THAT WAY HE WILL HAVE EQUIPMENT MOVING AROUND HIM.
12/14/2007	18:00 - 06:00	12.00	LOC	4	WAIT ON DAYLIGHTS
	06:00 - 18:00	12.00	LOC	3	TEAR DRAWWORKS APART WITH FAILURE ON BOTH SIDES OF DRUM SHAFT - PREPARE FOR SHIPPING TO OK. TWO HANDS HELPED INSTEAD OF HELPING TO MOVE RIG - DERRICK SET OFF AND HAULED TO OTHER LOCATION - ONE SUB PIECE LIFTED OFF AND LOADED OUT - MUD TANKS TOOK 3 WINCH TRUCKS TO SKID TO STABLE GROUND TO LOAD OUT - HYDRILL PULLED OFF AND SET ON ROAD TRUCK FOR ELEMENT REPLACEMENT IN CASPER - 3 LOADS OF MATS HAULED IN
12/15/2007	18:00 - 06:00	12.00	LOC	3	WAIT ON DAY LIGHTS
	06:00 - 18:00	12.00	LOC	3	SET DOWN AND LOAD OUT SUBS - NIPPLE STACK DOWN AND MOVE OUT - SET NIGHT CAP ON WELLHEAD - SET LINER DOWN AND SET MATS - SET SUBS - SET SHAKER AND MIDDLE TANK - WELDERS AND HANDS SEEM SLOW - DRUM NOT LOADED OUT UNTIL 10:30
12/16/2007	18:00 - 06:00	12.00	LOC	4	WAIT ON DAY LIGHTS
	06:00 - 18:00	12.00	LOC	3	SET IN BOP'S - FINISH SUBS AND SPREADERS - SET GAS BUSTER AND CHOKE LINES - MOVE PIPE AGAIN SO WE CAN GET DERRICK ON SMALL

## Operations Summary Report

Well Name: TU 3-35-7-21ST2  
 Location: 35- 7-S 21-E 26  
 Rig Name: UNIT

Spud Date: 12/5/2007  
 Rig Release: 4/26/2008  
 Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
12/16/2007	06:00 - 18:00	12.00	LOC	3	LOCATION - 70% OF BACK END SET IN - ONE TRENCHER COULDNT DID DONE - GOT ANOTHER ONE AND BROKE CHAIN - 15% TRENCHING DOWN - PUT NEW SALA BLOCK IN DERRICK - PUT DERRICK RUNNERS ON TO PROTECT KELLY HOSE AND TOP DRIVE HOSES
12/17/2007	18:00 - 06:00	12.00	LOC	3	WAIT ON DAYLIGHTS
	06:00 - 18:00	12.00	LOC	4	SET DERRICK ON FLOOR - SET CATWALK AND BEAVER SLIDE - SET UP FLARE BOX - BACK END ALL SET IN - WE HAVE BAR HOPPERS AND STANDS LEFT - START CHANGING OUT HIGH PRESSURE LINES ON FLOW LINE AND VENT LINE - BOTH ARE WASHED OUT - WE ARE PUTTING IN NEW 10" BALL VALVES - WILL TAKE TWO DAYS OF REFABRICATION TO FINISH, COULD FINISH IT BY MONDAY NIGHT - ONE CREW PULLED CORDS WHILE TRYING TO START RIG MOTOR ALL DAY WITH NO LUCK - TRENCHER REPAIRED AND WILL BE DONE BY MONDAY NOON - TRUCKS ARE GONE AND CRANE DONE BY NOON - SOME ELECTRICAL CORDS NEED REPLACING AS IT LOOKS LIKE THEY WERE CUT - UNIT MECHANICS ARE CHANGING CHAINS ON DRAWWORKS AND OTHER SMALL REPAIRS -
12/18/2007	18:00 - 06:00	12.00	RIG	2	AT THIS TIME I AM SHOWING TROUBLED TIME OR AS A MARKER AS WE SHOULD NOW BE ON UNIT TIME - IT IS MARKED ON IADC
	06:00 - 18:00	12.00	LOC	4	RIGGING UP ON UNIT TIME - DRAWWORKS WILL BE HERE TUESDAY MORNING - CRANE AND MECHANICS ARE LINED UP TO PUT TOGETHER - DID NOT FINISH NEW FLOW LINE AND VENT LINE SYSTEM, WE DID GET PROBLEM AREAS SOLVED AND COULD BE DONE TUESDAY NIGHT. WELDERS INSTALLED DRAWWORKS TIE DOWNS - ALSO WELDER REPAIRED OIL LEAK - SUPPORT LEGS WELDED ON WELL HEAD , WILL POUR CEMENT WHEN STACK IS CENTERED AND TORQUED UP - WILL START DIGGING IN FLARE LINES THIS MORNING - WILL GO TO RIG GEN. TODAY - UNIT WELDERS STILL WORKING ON THE MOVING OF GUN LINES(SHOULD BE DONE TODAY) MY WELDERS HAVE FINISH SUCTION-JUST NEED TO INSTALL BRACKETS FOR EXTRA AGGITATOR AND FINISH MOVING HOPPER SUCTION SO BLADES FIT ON BOTTOM - WILL EMAIL YOU COSTS FOR BACK BILLING UNIT FOR YOUR MEETING
12/19/2007	18:00 - 06:00	12.00	LOC	4	WAIT ON DAYLIGHTS
	06:00 - 18:00	12.00	LOC	4	DRUM SHAFT SHOWED UP AND THEY STARTED PUTTING IT TOGETHER - 70% DONE - RIG UP - UNIT WELDERS WORKING ON GUN LINES ECT - ELECTRICIAN SHOWED AND DID SOME REPAIRS - STARTED DIGGING IN FLARE LINES, GROUND FROZE AND ALL ROCK - HAD TO GET A BACKHOE WITH HAMMER DRILL TO HELP OUT - ROUSTABOUTS ON THE VERY SLOW SIDE - REPAIRS ALSO BEING DOWN ON TOP DRIVE POWER UNIT BY A TESCO HAND -
12/20/2007	18:00 - 06:00	12.00	LOC	4	WAIT ON DAYLIGHTS
	06:00 - 18:00	12.00	LOC	4	FINISHED CHIPPING AWAY ON FLARE LINE DITCH - HOOKED UP ALL FLARE LINES AND HAVE IT 50% COVERED - HOOKED UP RT. HEAD (1 7/8 STUD FELL IN HOLE-WILL RETRIEVE WITH MAGNET AND DRILL PIPE ) - WELDERS FINISHED GUN LINES FOR UNIT - STABILIZER BRACES AND PADS DOWN ON WELLHEAD - STEAM NOW CIRCULATING RIG - FINISHED PUTTING DRAWWORKS TOGETHER AND SET ON FLOOR AT DARK TIME
12/21/2007	18:00 - 06:00	12.00	LOC	4	WAIT ON DAYLIGHTS ON UNIT TIME
	06:00 - 10:00	4.00	LOC	4	SET ELECTRICAL SUITCASE FOR DRAWWORKS - SET DOG HOUSE - KOOMEY HOUSE AND AIR HEATER ON UNIT TIME
	10:00 - 18:00	8.00	LOC	4	RUN DRAWWORKS FULL OPEN FOWARD AND BACKWARDS - NO VIBRATION - HOOK UP EATON BRAKE AND RUN FULL OPEN FOWARD AND REVERSE - NO VIBRATION - UNIT WELDERS FINISHED SAFETY RAILING IN SUBS - MECHANICS WORKING ON TOP DRIVE-SERVICE PUMPS AND CHANGE OUT

CONFIDENTIAL



## Operations Summary Report

Well Name: TU 3-35-7-21ST2

Location: 35- 7-S 21-E 26

Rig Name: UNIT

Spud Date: 12/5/2007

Rig Release: 4/26/2008

Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
12/21/2007	10:00 - 18:00	8.00	LOC	4	ORINGS AND DUE 90 DAY CHECK - TESCO WILL CHANGE OUT HYD. COUPLER ON FRIDAY AND DETROIT MECHANIC WILL CHECK OUT TOP END OF MOTOR - PREMIX AND SUCTION TANK FINISHED EXCEPT FOR TURNING AGGITATOR 180 IN SUCTION TANK - WILL TORQUE UP BOP'S IN MORNING - WILL SET PREMIX TANK AND BLUE LINE IN MORNING - DERRICK IS STRUNG UP, FOUND FLAT SPOT 100' FEET INTO DRILL LINE - CUT AND LAYED DOWN, SHOULD RAISE DERRICK TOMORRO AND WILL BREAK TOURS - TRANSFERED 1585 BBLs OIL BASE FROM OLD LOCATION TO UNIT 328 - SOLIBOND MOVING IN EQUIPMENT LATE AFTERNOON
12/22/2007	18:00 - 06:00	12.00	LOC	4	TAKE RIG LOADER AND OPEN ROAD FOR CREWS AND WELDERS ECT. TORQUE UP BOP'S - HELP WELDERS ON BLUEY LINE - RAISE DERRICK - START RIGGING UP FLOOR - MECHANICS FINISHED TOP DRIVE - INSTALL STEEL LINE IN SUITCASE FOR AIR DRILLING - SET PREMIX TANK RIG UP FLOOR - DIG OUT AND START PUTTING TOP DRIVE PIECES TOGETHER
	06:00 - 10:00	4.00	OTH		
	10:00 - 18:00	8.00	LOC	4	
12/23/2007	18:00 - 06:00	12.00	LOC	4	RIG UP FLOOR & START BOLTING TORQUE TUBE TOGETHER, FINISHED RIGGING UP BLOOE LINE, SET IN AIR PACKAGE
	06:00 - 18:00	12.00	LOC	4	
	18:00 - 06:00	12.00	LOC	4	
12/24/2007	06:00 - 18:00	12.00	LOC	4	RIG UP TOP DRIVE, REPLACED 2 BAD 2" HYDRAULIC HOSES IN SERVICE LOOP & 37 PIN CORD, STARTER IS BAD ON TOP DRIVE MOTOR, MECHANIC WILL BE BACK IN THE MORNING WITH PARTS. RIGGED UP AIR PACKAGE. FINISH RIGGING UP FLOOR, RIGGED UP AIR HEATER, PUT UP TARPS ON SUBS, HOOKED UP ACCUMALATOR LINES, RIG UP SCAFFOLDING AROUND BOP
	18:00 - 06:00	12.00	LOC	4	
	06:00 - 18:00	12.00	LOC	4	
12/25/2007	06:00 - 18:00	12.00	LOC	4	CONTINUE WITH GENERAL RIG UP- CEMENT CELLAR, HOOK UP CHOKE LINE, FAB AIR LINES FOR AIR PACKAGE, RIG UP PEMIX TANK & REMOVE BAD VALVES IN MUD TANKS, PICK UP BALES & ELEVATORS, INSTALL NEW STARTER ON TOP DRIVE MOTOR
	18:00 - 03:00	9.00	BOP	2	
	03:00 - 06:00	3.00	LOC	4	
12/26/2007	06:00 - 18:00	12.00	LOC	4	FINISH RIGGING UP FLOOR, INSTALL WEAR BUSHING, FINISH RIGGING UP AIR PACKAGE, FAB & INSTALL SHAKER SLIDES, INSTALL NEW VALVES IN SUCTION TANK
	18:00 - 06:00	12.00	LOC	4	
	06:00 - 18:00	12.00	LOC	4	
12/27/2007	06:00 - 09:00	3.00	LOC	4	FINISH FILLING SUCTION TANK, BUILD DIKE FROM FLARE BOX TO RESERVE PIT, PICK UP TOOLS & TRASH AROUND LOCATION, WENT ON DAYRATE @ 0600, 12/26/07
	09:00 - 10:00	1.00	OTH		RESET TORQUE LIMITER ON TOP DRIVE
	10:00 - 11:00	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, SET COM, FUNCTION BLIND RAMS
	11:00 - 11:30	0.50	FISH	5	MAKE UP MAGNET
	11:30 - 14:00	2.50	FISH	5	TRIP IN HOLE WITH MAGNET PICKING UP 5" DP, TAGGED CEMENT @ 492'
	14:00 - 15:00	1.00	BOP	1	TIGHTEN BOLTS ON ROT. HEAD FLANGE
	15:00 - 16:00	1.00	FISH	5	WORK MAGNET & TRIP OUT USING SPINNERS
	16:00 - 16:30	0.50	FISH	5	LAY DOWN MAGNET
	16:30 - 19:00	2.50	TRP	1	RACK, STRAP & CALIPER BHA & ENTER INTO PASON

## Operations Summary Report

Well Name: TU 3-35-7-21ST2

Location: 35- 7-S 21-E 26

Rig Name: UNIT

Spud Date: 12/5/2007

Rig Release: 4/26/2008

Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
12/27/2007	19:00 - 21:30	2.50	BOP	1	HOOK UP KILL LINE & HALLIBURTON LINE, INSTALL CELLAR COVER & BUILD UP DIKE FROM FLARE BOX TO RESERVE PIT
	21:30 - 01:30	4.00	TRP	1	TRIP IN PICKING UP BHA
	01:30 - 04:00	2.50	RIG	2	TOP DRIVE REPAIR- TROUBLESHOOT & REPLACE BAD RELAY FOR FORWARD/ REVERSE CONTROL
12/28/2007	04:00 - 06:00	2.00	DRL	4	DRILL CEMENT & FLOAT EQUIPMENT, TAGGED CEMENT @ 494'
	06:00 - 07:00	1.00	CIRC	6	BUILD VOLUME IN SUCTION TANK
	07:00 - 09:00	2.00	CIRC	1	CIRC. THRU BLOOIE LINE & SET FOAMER FOR DRLG, BLOW HOLE CLEAN
	09:00 - 12:30	3.50	DRL	4	AIR DRILL SHOE TRACK & 10' OF NEW HOLE, WOB- 8-12K, RPM- 50, SCFM- 1000
	12:30 - 13:00	0.50	EQT	2	CIRC & PERFORM FIT TO 10.6 EQUIVLENT
12/29/2007	13:00 - 14:00	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION ANNULAR & COM
	14:00 - 04:00	14.00	DRL	1	AIR DRILL WITH FOAM F/ 569'-904', WOB- 12-18K, RPM- 70, SCFM- 1000
	04:00 - 05:00	1.00	RIG	2	REPAIR OIL LINE ON ROT. HEAD
	05:00 - 06:00	1.00	DRL	1	AIR DRILL WITH FOAM F/ 904'-934', WOB- 12-18K, RPM- 70, SCFM- 1000
	06:00 - 10:00	4.00	DRL	1	AIR DRILL WITH FOAM F/ 934'-994', WOB- 15-20K, RPM- 50-70, AIR JAMMER PUMPING 1100 SCFM & 25 GPM DRLG MUD, FOAMING FLUID MW- 8.5, VIS- 35, KCL- 2.8%, K2SO3- 1.75%
12/30/2007	10:00 - 11:00	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION TOP PIPE RAMS & COM
	11:00 - 04:00	17.00	DRL	1	AIR DRILL WITH FOAM F/ 994'-1577', WOB- 12-20K, RPM- 50-60, AIR JAMMER PUMPING 1100 SCFM & 25 GPM DRLG MUD, FOAMING FLUID MW- 8.5, VIS- 35, KCL- 2.8%, K2SO3- 1.75%
	04:00 - 05:30	1.50	SEQ	1	RETIGHTEN SWIVEL & TOP DRIVE CONNECTIONS
	05:30 - 06:00	0.50	DRL	1	AIR DRILL WITH FOAM F/ 1577'-1590', DRLG WITH SAME PARAMETERS
	06:00 - 08:00	2.00	DRL	1	AIR DRILL WITH FOAM F/ 1590'-1638', WOB- 12-20K, RPM- 50, AIR JAMMER PUMPING 1100 SCFM & 25 GPM FOAMING FLUID MW- 8.5, VIS- 37, KCL- 3.1%, K2SO3- 1.85%
12/31/2007	08:00 - 09:00	1.00	RIG	2	REMOVE CLAMP ON SAVER SUB & BREAK KELLY JT.
	09:00 - 11:30	2.50	DRL	1	AIR DRILL WITH FOAM F/ 1638'-1699', DRLG WITH SAME PARAMETERS
	11:30 - 12:30	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION LOWER PIPE RAMS & COM
	12:30 - 17:00	4.50	DRL	1	AIR DRILL WITH FOAM F/ 1699'-1822', DRLG WITH SAME PARAMETERS
	17:00 - 17:30	0.50	SUR	1	CIRC. WITH AIR & SURVEY @ 1790' - .6 DEG, 144.6 AZ
1/1/2008	17:30 - 18:00	0.50	DRL	1	ATTEMPT TO START DRLG, MANIFOLD PRESSURE INCREASED TO 1100#, HOLE STARTED TO PACK OFF, BYPASSED AIR TO BLOOIE LINE, BROKE CONNECTION TO LAY DOWN 2 JTS & ACCIDENT OCCURRED
	18:00 - 06:00	12.00	WOT	2	OPERATIONS STOPPED DUE TO ACCIDENT.
	06:00 - 06:00	24.00	WOT	2	OPERATIONS SUSPENDED, WAIT ON ORDERS
	06:00 - 18:00	12.00	WOT	2	OPERATIONS SUSPENDED, WAIT ON ORDERS
	18:00 - 06:00	12.00	LOC	4	RIG DOWN AIR PACKAGE & START RIGGING DOWN BLOOIE LINE
1/2/2008	-				SHORT 3 HANDS ON DAYLIGHTS & SHORT A DRILLER & 2 HANDS ON MORNING TOUR
	06:00 - 18:00	12.00	LOC	4	LOAD & HAUL OUT AIR PACKAGE, RIG DOWN BLOOIE LINE & RIG UP FLOW LINE, FILL MUD TANKS
	18:00 - 00:00	6.00	CIRC	6	PRIME YELLOW DOG, FILL PITS, TRANSFER PREMIX TANK TO ACTIVE PITS, THAW OUT GUN LINES
	00:00 - 01:30	1.50	REAM	1	BACK REAM & WORK TIGHT HOLE 1796'-1760'
	01:30 - 06:00	4.50	FISH	6	ATTEMPT TO BREAK CIRCULATION & WORK STUCK PIPE @ 1751'
1/3/2008	-				DAYLIGHTS SHORT 3 HANDS & MORNING TOUR SHORT 2 HANDS
	06:00 - 11:00	5.00	FISH	6	WORK STUCK PIPE, PU WT- 325K, SO WT- 50K (JARS NOT WORKING)
	11:00 - 12:00	1.00	FISH	6	BREAK OUT & LAY DOWN 2 SINGLES
	12:00 - 16:00	4.00	FISH	4	HOLD SAFETY MEETING, RIG UP & RUN FREE POINT WIRELINE WITH DCT WIRELINE SERVICES, FREE POINT DEPTH- 1546', LEAVING THE BIT, BIT SUB,

CONFIDENTIAL

## Operations Summary Report

Well Name: TU 3-35-7-21ST2

Location: 35- 7-S 21-E 26

Rig Name: UNIT

Spud Date: 12/5/2007

Rig Release: 4/26/2008

Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
1/3/2008	12:00 - 16:00	4.00	FISH	4	THREE 8" DC'S, XO & THREE 6 1/2" DC'S BELOW FREE POINT.
	16:00 - 17:00	1.00	FISH	3	PICK UP SURFACE JARS
	17:00 - 18:00	1.00	RIG	2	WORK ON TOP DRIVE, UNABLE TO ROTATE QUILL, LOCK NOT WORKING PROPERLY
	18:00 - 02:00	8.00	FISH	3	JAR STUCK PIPE USING SURFACE JARS, PU WT- 250K, SO WT- 25K, INSPECT DERRICK EVERY 4 HRS. MOVED STUCK BHA 1.5'
	02:00 - 03:00	1.00	FISH	3	LAY DOWN FISHING JARS
1/4/2008	03:00 - 06:00	3.00	RIG	3	BLOW DOWN MUD LINES & THAW KELLY HOSE
	06:00 - 09:30	3.50	FISH	4	FREE POINT TOOLS IN HOLE - WILL BACK OFF TOP OF BOTTOM HWDP
	09:30 - 18:00	8.50	RIG	5	START THAWING EQUIPMENT - YELLOW DOG AND HOSES - PREMIX TANK HOSES - STAND PIPE - KELLY HOSE - SWIVEL AND TOP DRIVE - PUMP SUCTIONS - HOPPER PUMPS - TOOL PUSHER YOUNG AND FROM A SMALL RIG. ALITTLE BIT OVERWELMED I THINK - STARTED SUGGESTING TO BREAK KELLY AT STAND PIPE GOOSENECK - FINALLY THEY STARTED AT 1600 AND HAD DOWN AT 1730, KELLY AND STAND PIPE FROZE
	18:00 - 05:00	11.00	RIG	2	WENT ON UNIT TIME FOR OFFICE MARKER - HAVING TO SHOW HANDS WHAT TO DO - WE GOT ANOTHER TOOL PUSHER FROM ANOTHER RIG TO RELIEVE OTHER TOOLPUSHER - HE HAD MORE GIDDY UP AND GO AND WE HAD WRAPPED SUCTION LINES WITH STEAM HOSES AND INSULATION, GOT ONE HOPPER RUNNING AND GUN LINES CIRCULATING - STANDPIPE - KELLY - TOP DRIVE - SWIVEL THAWED OUT BY 1230 - START PUTTING EQUIPMENT BACK TOGETHER - CALLED PASON AS TWO TANK PVT PROBES NOT WORKING - ADDED 130 BBLS GEL WATER TO ACTIVE SYSTEM - REPAIRED 4" STANDPIPE VALVE AS IT WAS WASHED
	05:00 - 05:30	0.50	RIG	5	BACK ON QUESTAR TIME - PRESSURE TEST UNIONS WITH RIG AIR - TOP DRIVE VALVE LEAKING PRETTY BAD
1/5/2008	05:30 - 06:00	0.50	FISH	4	START RIGGING UP WIRE LINE TOOLS AND EQUIPMENT FOR BACKOFF
	06:00 - 09:30	3.50	FISH	4	RUN IN HOLE WITH BACK OFF CHARGE - WORK TORQUE FOR ABOUT ONE HOUR AND SET CHARGE OFF - TOP OF FISH IS AT 1420' WIRELINE AND 1421 BY MY NUMBERS
	09:30 - 12:00	2.50	FISH	6	WORK PIPE AFTER BACKOFF - HAD TO GO 100K OVER TO START WORKING FREE - WITH ONE STAND OUT WE HAD 5% FLOW - WORK NEXT STAND WITH OVER PULL AND PUMPS AND SHE CAME OUR WAY WITH FULL RETURNS AND CORRECT STRING WT.
	12:00 - 12:30	0.50	FISH	4	RIG DOWN WIRELINE AND TIGHTEN HAMMER UNION ON STAND PIPE GOOSENECK
	12:30 - 18:00	5.50	CIRC	1	CIRCULATE AND CONDITION HOLE WITH HIGH VIS SWEEPS AND WASH STANDS BACK DOWN TO TOP OF FISH - HEAVY-HEAVY SAND COMING OVER BUT CLEANING UP NICELY - TAGGED TOP OF FISH
1/6/2008	18:00 - 21:30	3.50	CIRC	1	FINISH PUMPING SWEEPS AND CLEANING UP HOLE FOR TRIP OUT
	21:30 - 01:00	3.50	TRP	2	TRIP OUT OF HOLE - PULLING RT. HEAD - LD DRILLING JARS
	01:00 - 01:30	0.50	RIG	7	SAFETY MEETING ON PICKING UP TOOLS
	01:30 - 02:30	1.00	TRP	1	PICK UP FISHING TOOLS
	02:30 - 05:00	2.50	TRP	2	TRIP TO 150' FROM FISH AND INSTALL RT. HEAD
	05:00 - 06:00	1.00	REAM	1	SAFETY WASH AND REAM LAST 150' TO BOTTOM PUMPING SWEEPS
	06:00 - 12:00	6.00	FISH	5	PICK UP SINGLE AND WASH TO TOP OF FISH - COULD NOT SCREW IN, MADE ALL KINDS OF ATTEMPS AND METHODS - STILL WOULD GO TO SIDE OF FISH - PUMP SWEEP FOR TRIP OUT
	12:00 - 14:00	2.00	TRP	2	TRIP OUT AND LD FISHING TOOLS
	14:00 - 15:00	1.00	RIG	1	SERVICE RIG AND TOP DRIVE
	15:00 - 15:30	0.50	TRP	1	UNLOAD HOT SHOT TRUCK - GET PICTURES OF TOOLS AND ENTER IN PASON BEFORE TRIPPING IN
	15:30 - 16:00	0.50	TRP	1	PICK UP BHA AND TORQUE UP

## Operations Summary Report

Well Name: TU 3-35-7-21ST2

Location: 35-7-S 21-E 26

Rig Name: UNIT

Spud Date: 12/5/2007

Rig Release: 4/26/2008

Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
1/6/2008	16:00 - 17:00	1.00	TRP	2	TRIP INTO HOLE
	17:00 - 18:00	1.00	REAM	1	WASH AND REAM FROM 740 TO 835 - HIT FIRST BRIDGE AT 760'
	18:00 - 23:30	5.50	REAM	1	FINSIH WASH AND REAM TO BOTTOM - HARD BRIDGE FROM 815 TO 825 - CLEANED UP OK - TAG TOP OF FISH - DOUBLE CHECKED WITH SLOW RT.
	23:30 - 03:00	3.50	TRP	2	TRIP SLOWLY OUT WET AND WASH AND REAM ANY TIGHT SPOT
	03:00 - 05:00	2.00	TRP	1	LD DOWN BIT ASSEMBLY - CLEAN FLOOR AND MAKE UP FISHING TOOLS
1/7/2008	05:00 - 06:00	1.00	TRP	2	TRIP IN HOLE WITH FISHING TOOLS
	06:00 - 07:00	1.00	TRP	2	FINISH TRIP TO BOTTOM
	07:00 - 08:30	1.50	REAM	1	WASH LAST THREE STANDS TO BOTTOM WITH HIGH RATE AND SWEEPS
	08:30 - 09:30	1.00	FISH	5	SCREW IN TO TOP OF FISH AND PICK UP SURFACE JARS
	09:30 - 17:00	7.50	FISH	3	JAR ON FISH UNTIL BRAKES FAIL - 32" OF MOVEMENT DOWN WITH 7" TRAVEL UP THAT IS STICKY - AFTER PULLING UP IT TAKES 4 HITS TO GET BACK TO BOTTOM - INSPECT DERRICK PERIODICALLY - WE HAD A 3500 PSI BURST IN SUB AND IT HAS BEEN BLOWN
1/8/2008	17:00 - 18:00	1.00	RIG	1	SERVICE RIG WHILE LOOKING FOR PARTS - BROKEN ADJUSMENT SOCKET ON BRAKES
	18:00 - 03:00	9.00	RIG	2	WAIT ON REPLACEMENT PARTS - PARTS COMING FROM UNIT 106 - PARTS INSPECTED BY SMITHS IN ROCKSPRINGS ON WAY TO US - REPAIR COOLANT LEAK FOR BRAKES
	03:00 - 04:00	1.00	RIG	6	CUT DRILL LINE
	04:00 - 06:00	2.00	FISH	3	CONTINUE JARRING - BOWEN SURFACE JARS HOPEFULLY SHOWING UP THIS MORNING - FROM 0400 TO 0600 WE HAVE MOVED 8 MORE INCHES DOWN
	06:00 - 15:00	9.00	FISH	3	JAR ON FISH - JARS FAILED - INSTALL NEW SET - INSPECT DERRICK AND TOP DRIVE EVERY 1.5 HOURS - MADE 13 INCHES - ALL TOTAL 53 INCHES BEFORE PARTING STRING
1/8/2008	15:00 - 16:00	1.00	CIRC	1	CIRCULATE HOLE CLEAN WITH TWO SWEEPS FOR TRIP OUT FOR PARTED STRING
	16:00 - 18:00	2.00	TRP	13	TRIP OUT - NON ROTATE - 20K DRAG - TOP OF FISH NOW AT 1181.70 - HEAVY WT. PARTED 6.5 FEET BELOW BOX END
	18:00 - 22:00	4.00	TRP	1	BREAK AND LD PARTED HW. - COULD NOT GET BENT JOINT IN MOUSE HOLE TO BREAK SINGLE ON TOP - LAYED DOWN DOUBLE ON CATWALK - LOAD FISHING TOOLS ON TRUCK - UNLOAD DIRECTIONAL EQUIPMENT
	22:00 - 01:00	3.00	TRP	1	SCREW ON MULE SHOE AND TRIP FOUR STANDS DRILL PIPE IN - PICKUP 26 JOINTS DRILL PIPE - THREAD PROTECTORS FROZE ON
	01:00 - 02:00	1.00	CIRC	1	CIRCULATE HOLE FOR CEMENT - HOLD SAFETY MEETING
1/9/2008	02:00 - 04:00	2.00	CMT	4	PRESSURE TEST AND PUMP CEMENT FOR PLUG - PLUG WAS BALANCED
	04:00 - 05:00	1.00	TRP	2	TRIP 8 STANDS OUT SLOWLY
	05:00 - 05:30	0.50	CIRC	1	CIRCULATE PIPE AND HOLE CLEAN
	05:30 - 06:00	0.50	TRP	2	FINISH TRIP OUT RACKING PIPE BACK SO WE CAN INSPECT BHA AND TOP DRIVE
	06:00 - 18:00	12.00	ISP	1	INSPECT HWDP - XO SUBS - SAVER SUB - BIT SUB AND ALL SERVICE BREAKS FROM SWIVEL DOWN - BREAK KELLY OFF AND LOWER TOP DRIVE UNIT FOR POST JAR INSPECTION-LOAD PATH -
1/9/2008	18:00 - 19:00	1.00	TRP	1	PICK UP BENT DOUBLE HWDP AND PUT IN MOUSE HOLE UPSIDE DOWN AND BREAK APART
	19:00 - 21:00	2.00	TRP	1	STRAP - ID - OD NEW BHA AND ENTER IN PASON
	21:00 - 22:00	1.00	DRL	3	PICK UP MUD MOTOR AND DIRECTIONAL TOOLS - SCRIBE MOTOR
	22:00 - 00:00	2.00	TRP	1	START PICKING UP BHA
	00:00 - 01:00	1.00	RIG	1	SERVICE RIG AND TOP DRIVE
1/9/2008	01:00 - 05:00	4.00	TRP	1	FINISH PICKING UP BHA
	05:00 - 05:30	0.50	DRL	4	TAG CEMENT AT 725' WASH DOWN TO 830' - NO BIT WT. WITH PUMPS ON - PUMPS OFF WILL STACK OFF TO 25K AND IT BLEEDS OFF

## Operations Summary Report

Well Name: TU 3-35-7-21ST2

Location: 35-7-S 21-E 26

Rig Name: UNIT

Spud Date: 12/5/2007

Rig Release: 4/26/2008

Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
1/9/2008	05:00 - 05:30	0.50	DRL	4	CIRCULATE AND CLEAN HOLE WHILE WAITING ON ORDERS
	05:30 - 06:00	0.50	CIRC	1	CIRCULATE AND CONDITION MUD
1/10/2008	06:00 - 07:00	1.00	CIRC	1	WASH PLUG DOWN TO 1100' - CEMENT ALL SOFT
	07:00 - 12:00	5.00	DRL	5	CIRCULATE AND SWEEP HOLE CLEAN FOR SETTING PLUG
	12:00 - 14:00	2.00	CIRC	1	PUMP PILL AND TRIP OUT
	14:00 - 15:00	1.00	TRP	13	SERVICE RIG AND TOP DRIVE
	15:00 - 16:00	1.00	RIG	1	TRIP CEMENTING STRING IN TO HOLE - SLM -
	16:00 - 17:00	1.00	TRP	2	CIRCULATE AND CONDITION MUD WHILE WAITING FOR NEW CEMENT AND TRUCKS TO SHOW - TEST CEMENT WATER BY NEWPARK AND HALLIBURTON (BOTH OK) - HEAT WATER TO 65 DEGREES -
	17:00 - 18:00	1.00	CIRC	1	CIRCULATE AND CONDITION WHILE WAITING FOR EQUIPMENT TO SHOW UP - CEMENT BIN SHOWED UP AT 1730 - CEMENT BULK TRUCKS SHOWED UP AROUND 2230 - UNLOAD - RIG TRUCKS UP
	18:00 - 01:30	7.50	WOT	4	HOLD SAFETY MEETING
	01:30 - 02:00	0.50	RIG	7	SET CEMENT PLUG - WORKED WELL - BALANCED
	02:00 - 03:00	1.00	CMT	4	TRIP SLOWLY OUT TO SHOE
	03:00 - 03:30	0.50	TRP	2	CIRCULATE PIPE AND HOLE CLEAN
	03:30 - 04:00	0.50	CIRC	1	FINISH TRIP OUT AND LD MULE SHOE
	04:00 - 04:30	0.50	TRP	2	WAIT ON CEMENT - WET AND DRY SAMPLES PUT IN OFFICE
1/11/2008	04:30 - 06:00	1.50	WOT	1	WAIT ON CEMENT
	06:00 - 12:00	6.00	WOT	1	TRIP DIRECTIONAL TOOLS IN TO TOP OF CEMENT - TAGGED AT 587'
	12:00 - 13:30	1.50	TRP	2	WASH CEMENT DOWN TO 649' ALL SOFT - 12 HOURS ON CEMENT
	13:30 - 15:30	2.00	CIRC	1	WAIT ON CEMENT
	15:30 - 18:00	2.50	WOT	1	WITH 18 HOURS DRILL CEMENT FROM 649' TO 681' - CEMENT SOFT
	18:00 - 21:00	3.00	DRL	4	CIRCULATE HOLE CLEAN WITH SWEEPS
	21:00 - 22:00	1.00	CIRC	1	WOC
	22:00 - 03:00	5.00	WOT	1	WITH 24 HOURS ON CEMENT WE DRILLED CEMENT FROM 681 TO 747 - 740 TO 747 PICKED UP BIT WT - TURN PUMPS AND ROTARY OFF - STACK 20K ON CEMENT AND DOES NOT BLEED OFF - BUT IT DOES DRILL UP WITH 2K ON BIT - WET SAMPLE IN OFFICE DID NOT GET HARD UNTIL 16 HOURS LATER -
	03:00 - 04:00	1.00	DRL	4	CIRC. HOLE CLEAN WITH SWEEPS
	04:00 - 05:30	1.50	CIRC	1	WOC AND ORDERS - AT 0900 WE VERY WELL SHOULD BE DOING DIRECTIONAL WORK
	05:30 - 06:00	0.50	WOT	1	WAIT ON CEMENT
1/12/2008	06:00 - 09:00	3.00	WOT	1	DRILL CEMENT TO 762' - CEMENT HARD ENOUGH AT THAT POINT TO START BUILDING TROUGH
	09:00 - 10:00	1.00	DRL	5	BUILD TROUGH - AZ WAS 263 SO WE WENT IN AT 90
	10:00 - 11:00	1.00	DRL	2	TIME DRILL FROM 752' TO 761'
	11:00 - 18:00	7.00	DRL	2	TIME DRILL 761 TO 792 = 792' HAD 70% FORMATION
	18:00 - 02:00	8.00	DRL	2	DRILL FROM 792 TO 830 - 830' SAMPLE 80% FORMATION
	02:00 - 04:00	2.00	DRL	1	SLIDE FROM 830 TO 855
1/13/2008	04:00 - 06:00	2.00	DRL	2	RT. FROM 855 TO 896 - CHECK SHOT - -40' = 853 = 1.5 - 82.1
	06:00 - 07:30	1.50	DRL	1	SLIDE FROM 896 TO 918 - SURVEY
	07:30 - 08:30	1.00	DRL	2	RT. FROM 918 TO 935 - CHECK SHOT
	08:30 - 10:30	2.00	DRL	1	SERVICE RIG AND TOP DRIVE
	10:30 - 11:30	1.00	RIG	1	RT. FROM 935 TO 955 - SURVEY - -40'=915 = 2.0 = 69.4
	11:30 - 12:00	0.50	DRL	1	SLIDE FROM 955 TO 967
	12:00 - 13:00	1.00	DRL	2	RT. FROM 967 TO 1071 -40=1033=2.9=68.1
	13:00 - 18:00	5.00	DRL	1	RT. FROM 1071 TO 1108 CHECK SHOT
	18:00 - 19:30	1.50	DRL	1	SLIDE FROM 1108 TO 1118
	19:30 - 20:30	1.00	DRL	2	DRILL FROM 1118 TO 1340 - 3 SURVEYS - 2 CHECK SHOTS - LAST = SURVEY
	20:30 - 06:00	9.50	DRL	1	

## Operations Summary Report

Well Name: TU 3-35-7-21ST2

Location: 35- 7-S 21-E 26

Rig Name: UNIT

Spud Date: 12/5/2007

Rig Release: 4/26/2008

Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
1/13/2008	20:30 - 06:00	9.50	DRL	1	DEPTH = 1223 - 4.0 - 60.8 - AS OF NOW WE DO NOT HAVE ANY INTERFERENCE FROM OTHER TOOLS - TOP OF LAST FISH = 1181 - BOTTOM OF OLD BIT = 1747 WITH A HOLE DEPTH OF 1822
1/14/2008	06:00 - 08:00	2.00	DRL	1	DRILL FROM 1340 TO 1388
	08:00 - 08:30	0.50	DRL	2	SLIDE FROM 1388 TO 1403
	08:30 - 10:00	1.50	DRL	1	DRILL FROM 1403 TO 1451
	10:00 - 11:00	1.00	DRL	2	SLIDE FROM 1451 TO 1469
	11:00 - 12:30	1.50	DRL	1	DRILL FROM 1469 TO 1513
	12:30 - 13:30	1.00	DRL	2	SLIDE FROM 1513 TO 1529
	13:30 - 14:00	0.50	DRL	1	DRILL FROM 1529 TO 1544
	14:00 - 15:00	1.00	RIG	1	SERVICE RIG AND TOP DRIVE
	15:00 - 17:00	2.00	DRL	1	DRILL FROM 1544 TO 1575 - LOST 24 BBLs AT 1550'
	17:00 - 17:30	0.50	DRL	2	DRILL FROM 1575 TO 1592
	17:30 - 18:00	0.50	DRL	1	DRILL FROM 1592 TO 1605
	18:00 - 23:00	5.00	DRL	1	DRILL FROM 1605 TO 1696
	23:00 - 00:00	1.00	DRL	2	SLIDE FROM 1696 TO 1716
	00:00 - 05:00	5.00	DRL	1	DRILL FROM 1716 TO 1822
	05:00 - 06:00	1.00	CIRC	1	CIRC. AND SWEEP HOLE FOR TRIP OUT - SURVEY FOR LAST TIME ON MWD - HOLE SEEPING 18 BBLs PER HOUR
1/15/2008	06:00 - 06:30	0.50	CIRC	1	CIRCULATE AND DROP TRIP SLUG
	06:30 - 10:00	3.50	TRP	2	TRIP OUT - COUPLE TIGHT SPOTS BUT REAMED OUT EASY
	10:00 - 12:00	2.00	TRP	1	DRAIN MOTOR - LD BIT, MOTOR, NON-MAG AND UBHO
	12:00 - 14:00	2.00	TRP	1	PUT NEW BHA ON PIPE RACKS - STRAP AND ENTER IN PASON - LOAD ALL DIRECTIONAL EQUIPMENT ON TRUCKS
	14:00 - 15:00	1.00	RIG	1	SERVICE RIG AND TOP DRIVE
	15:00 - 17:00	2.00	TRP	1	PICK UP NEW BHA TO SHOE - THAW FLOW LINE SENSOR
	17:00 - 18:00	1.00	RIG	6	START CUTTING DRILL LINE
	18:00 - 19:30	1.50	RIG	6	FINISH CUTTING DRILL LINE AND REPAIR AIR VALVE FOR MAKEUP
	19:30 - 21:00	1.50	TRP	2	TRIP IN TO HOLE SLOWLY
	21:00 - 21:30	0.50	TRP	1	INSTALL RT. HEAD
	21:30 - 22:00	0.50	REAM	1	WASH 90' WITH NO FILL
	22:00 - 06:00	8.00	DRL	1	DRILL FROM 1822 TO 2125 - 10 BBL SWEEPS EVERY HOUR DOING GREAT - NO SEEPAGE AT THIS TIME
1/16/2008	06:00 - 08:00	2.00	DRL	1	DRILL FROM 2125 TO 2169
	08:00 - 09:00	1.00	RIG	1	SERVICE RIG AND TOP DRIVE
	09:00 - 18:00	9.00	DRL	1	DRILL FROM 2169 TO 2465 - SWEEPING HOLE EVERY HOUR
	18:00 - 06:00	12.00	DRL	1	DRILL FROM 2465 TO 2800 - SWEEPING HOLE EVERY HOUR - DUMPING SANDTRAP EVERY 8 HOURS - NO LOSSES
1/17/2008	06:00 - 12:00	6.00	DRL	1	DRILL F/ 2800'-3010', WOB-5-10K, RPM- 158 COMBINED, GPM- 642, MW- 9.1, VIS- 56, PUMPING HI VIS SWEEPS WITH 10% LCM HOURLY, HOLE SEEPING 12-15 BBLs/HR
	12:00 - 17:00	5.00	CIRC	6	LOST PARTIAL RETURNS, BYPASS SHAKERS, BUILD VOLUME & RAISE LCM TO 6% IN ACTIVE PITS. TOTAL LOSSES- 410 BBLs
	17:00 - 02:30	9.50	DRL	1	DRILL F/ 3010'-3219", WOB- 5-8K, RPM- 155 COMBINED, GPM- 600, MW- 9, VIS- 41, LCM- 10%, NO LOSSES
	02:30 - 04:30	2.00	CIRC	1	CIRC. WITH #2 PUMP & CLEAN OUT #1 PUMP SUCTION LINE
	04:30 - 06:00	1.50	DRL	1	DRILL F/ 3219'-3240', WOB- 5-10K, RPM- 150 COMBINED, GPM- 600, MW- 8.9, VIS- 46, LCM- 10%, NO LOSSES
1/18/2008	06:00 - 08:00	2.00	DRL	1	DRILL F/ 3240'-3288', WOB- 10K, RPM- 150 COMBINED, GPM- 600, MW- 8.9, VIS- 46, LCM- 10%, SHAKERS BYPASSED, NO LOSSES
	08:00 - 09:30	1.50	CIRC	1	CIRC. WITH #1 PUMP & CLEAN OUT #2 PUMP SUCTION LINE & REMOVE SCREENS FROM SUCTION LINES.
	09:30 - 02:00	16.50	DRL	1	DRILL F/ 3288'-3509', WOB- 10-12K, RPM- 155 COMBINED, GPM- 642, MW- 9.1,

QUESTAR E &amp; P

Printed: 8/12/2008 1:03:50 PM

## Operations Summary Report

Well Name: TU 3-35-7-21ST2

Location: 35- 7-S 21-E 26

Rig Name: UNIT

Spud Date: 12/5/2007

Rig Release: 4/26/2008

Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
1/18/2008	09:30 - 02:00	16.50	DRL	1	VIS- 46, LCM- 10%, SHAKERS BYPASSED, NO LOSSES
	02:00 - 03:00	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION ANNULAR & COM
	03:00 - 06:00	3.00	DRL	1	DRILL F/ 3509'-3557', DRLG WITH SAME PARAMETERS, MW & VIS, LCM- 11%, SHAKERS BYPASSED, NO LOSSES
1/19/2008	06:00 - 12:00	6.00	DRL	1	DRILL F/ 3557'-3633', WOB- 12-18K, RPM- 155 COMBINED, GPM- 642, MW- 9.1, VIS- 42, LCM- 10%, SHAKERS BYPASSED, NO LOSSES
	12:00 - 13:00	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION TOP PIPE RAMS & COM
	13:00 - 06:00	17.00	DRL	1	DRILL F/ 3633'-3817', WOB- 18-24K, RPM- 150 COMBINED, GPM- 600, MW- 9+, VIS- 44, LOST PARTIAL RETURNS @ 3680', RAISED LCM TO 13%, REGAINED FULL RETURNS, TOTAL LOSSES- 180 BBLS
1/20/2008	06:00 - 07:30	1.50	DRL	1	DRILL F/ 3817'-3823', WOB- 20-24K, RPM- 150 COMBINED, GPM- 600, MW- 9.1, VIS- 44, LCM- 13%, NO LOSSES
	07:30 - 08:00	0.50	CIRC	1	CIRC & MIX TRIP SLUG
	08:00 - 08:30	0.50	SUR	1	DROP SURVEY & PUMP TRIP SLUG
	08:30 - 12:30	4.00	TRP	10	TRIP OUT F/ BIT #3, BLOW DOWN STANDPIPE & PULLED ROT. HEAD, FUNCTIONED COM
	12:30 - 13:30	1.00	TRP	1	RETRIEVE SURVEY TOOL, BREAK BIT & LAY DOWN MUD MOTOR, FUNCTIONED BLIND RAMS
	13:30 - 15:30	2.00	RIG	1	LUBRICATE RIG & TOP DRIVE, CHANGE OIL IN TOP DRIVE MOTOR & ROTATE CERAMIC LINERS IN BOTH PUMPS
	15:30 - 16:30	1.00	RIG	3	BLOW OUT CHKE MANIFOLD & GAS BUSTER WITH AIR
	16:30 - 17:30	1.00	TRP	1	PICK UP & SURFACE TEST MUD MOTOR
	17:30 - 20:30	3.00	TRP	10	TRIP IN, FILL PIPE & BREAK CIRC. EVERY 1000', INSTALLED ROT. HEAD
	20:30 - 21:30	1.00	REAM	1	WASH 110' TO BOTTOM, 4' OF FILL
1/21/2008	21:30 - 06:00	8.50	DRL	1	DRILL F/ 3823'-3932', WOB- 10-14K, RPM- 150-155 COMBINED, GPM- 600-642, MW- 9.2, VIS- 42, LCM- 14%, SHAKERS BYPASSED, NO LOSSES
	06:00 - 11:00	5.00	DRL	1	DRILL F/ 3932'-4004', WOB- 15K, RPM- 155 COMBINED, GPM- 642, MW- 9.2, VIS- 45, LCM- 15%, NO LOSSES, SHAKERS BYPASSED
	11:00 - 12:00	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION ANNULAR & COM
1/22/2008	12:00 - 06:00	18.00	DRL	1	DRILL F/ 4004'-4238', WOB- 8-15K, RPM- 150-160 COMBINED, GPM- 600-685 (BIT STARTED STICK SLIPPING @ 4145') MW- 9.1, VIS- 46, LCM- 15% (HOLE SEEPING 6 BBLS/HR F/ 4060'-4140') LOST 48 BBLS
	06:00 - 14:00	8.00	DRL	1	DRILL F/ 4238'-4346', WOB- 10-15K, RPM- 160-180 COMBINED (INCREASED RPM TO 80 & 80 SPM ON EACH PUMP TO STOP STICK SLIP), GPM- 642-685, MW- 9.1, VIS- 42, LCM- 14%, NO LOSSES
	14:00 - 15:00	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION SUPER CHOKE & COM
1/23/2008	15:00 - 20:00	5.00	DRL	1	DRILL F/ 4346'-4390', DRLG WITH SAME PARAMETERS, MW & VIS, NO LOSSES
	20:00 - 21:00	1.00	SUR	1	DROP SURVEY, PUMP TRIP SLUG & BLOW DOWN STANDPIPE
	21:00 - 00:00	3.00	TRP	10	TRIP OUT F/ BIT #5, LAYED DOWN 1 JT, FUNCTIONED COM, HOLE FILL 21 BBLS OVER CALCULATED
	00:00 - 01:00	1.00	TRP	1	RETRIEVE SURVEY TOOL, BREAK BIT & LAY DOWN MUD MOTOR
	01:00 - 02:00	1.00	TRP	1	PICK UP & SURFACE TEST MUD MOTOR
	02:00 - 06:00	4.00	TRP	10	TRIP IN, BREAK CIRC. EVERY 1000', CIRC. BOTTOMS UP @ 2200' & 3850'
	06:00 - 07:00	1.00	REAM	1	WASH 70' TO BOTTOM WITH 5' OF FILL
	07:00 - 11:30	4.50	DRL	1	DRILL F/ 4390'-4469', WOB- 5-12K, RPM- 170 COMBINED, GPM- 685, MW- 9.1, VIS- 48, LCM- 15%, LOST 25 BBLS @ 4420', NO LOSSES SINCE THEN.
	11:30 - 12:30	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION BOTTOM PIPE RAMS & COM
	12:30 - 06:00	17.50	DRL	1	DRILL F/ 4469'-4634', WOB- 12-15K, RPM- 170-190 COMBINED, GPM- 685, MW- 9.2, VIS- 47, LCM- 15%, NO LOSSES (STICK SLIPPING STARTED @ 4600', BIT BALLING SWEEPS ARE NOT EFFECTIVE)
1/24/2008	06:00 - 13:00	7.00	DRL	1	DRILL F/ 4634'-4687', WOB- 15-22K, RPM- 170-190 COMBINED, GPM- 685, MW- 9.3, VIS- 46, LCM- 15%, NO LOSSES
	13:00 - 14:00	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION HCR & COM

CONFIDENTIAL

## Operations Summary Report

Well Name: TU 3-35-7-21ST2

Location: 35- 7-S 21-E 26

Rig Name: UNIT

Spud Date: 12/5/2007

Rig Release: 4/26/2008

Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
1/24/2008	14:00 - 14:30	0.50	CIRC	1	CHECK F/ FLOW & PUMP TRIP SLUG
	14:30 - 18:00	3.50	TRP	10	TRIP OUT F/ BIT #6, PULLED ROT. HEAD RUBBER
	18:00 - 19:00	1.00	TRP	1	TRIP OUT BHA WET, HOLE FILL 8 BBLS OVER CALCULATED
	19:00 - 19:30	0.50	TRP	1	DRAIN MUD MOTOR, BREAK BIT & MAKE UP NEW BIT, FUNCTIONED BLIND RAMS
	19:30 - 23:30	4.00	TRP	10	TRIP IN, BREAK CIRC. EVERY 1000'
	23:30 - 00:00	0.50	REAM	1	WASH 60' TO BOTTOM WITH 7' OF FILL
	00:00 - 06:00	6.00	DRL	1	DRILL F/ 4687'-4760', WOB- 8-12K, RPM- 150 COMBINED, GPM- 685, LCM- 15%, NO LOSSES
1/25/2008	06:00 - 08:30	2.50	DRL	1	DRILL F/ 4670'-4802', WOB- 14K, RPM- 150 COMBINED, GPM- 685, MW- 9.2, VIS- 45, LCM- 14%, NO LOSSES, STARTED RUNNING ONE CENTRIFUGE TO SLOWLY STRIP OUT LCM
	08:30 - 11:30	3.00	CIRC	1	CIRC. WITH #1 PUMP & WORK ON #2 PUMP (SUCTION VALVES WERE PLUGGED WITH LCM)
	11:30 - 14:30	3.00	DRL	1	DRILL F/ 4802'-4846', DRLG WITH SAME PARAMETERS, MW & VIS, LCM- 12%, NO LOSSES
	14:30 - 15:30	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION TOP PIPE RAMS & COM
	15:30 - 06:00	14.50	DRL	1	DRILL F/ 4846'-5053', WOB- 10-14K, RPM- 155 COMBINED, GPM- 685, MW- 9.2, VIS- 43, LCM- 10%, SHAKING OUT LCM SLOWLY USING 1 SHAKER, NO LOSSES
1/26/2008	06:00 - 16:30	10.50	DRL	1	DRILL F/ 5053'-5153', WOB- 10-15K, RPM- 155 COMBINED, GPM- 685, MW- 9.2, VIS- 42, LCM- 8%, 1 SHAKER BYPASSED, SHAKING OUT LCM SLOWLY, NO LOSSES
	16:30 - 17:30	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION LOWER PIPE RAMS & COM
	17:30 - 18:30	1.00	CIRC	1	CIRC. WITH #1 PUMP & WORK ON #2 PUMP (TRASH UNDER SUCTION VALVES)
	18:30 - 04:00	9.50	DRL	1	DRILL F/ 5153'-5225', WOB- 6-15K, RPM- 155-180 COMBINED, STICK SLIPPING STARTED @ 5200', PUMPING BIT BALLING SWEEPS WITH NO EFFECT, MW- 9.2, VIS- 42, LCM- 6%, SHAKING OUT LCM SLOWLY, NO LOSSES
	04:00 - 05:00	1.00	CIRC	1	MIX TRIP SLUG
	05:00 - 05:30	0.50	SUR	1	DROP SURVEY, PUMP TRIP SLUG & BLOW DOWN STANDPIPE
	05:30 - 06:00	0.50	TRP	10	TRIP OUT F/ BIT #7
1/27/2008	06:00 - 10:00	4.00	TRP	10	TRIP OUT, FUNCTIONED COM, HOLE FILL 26 BBLS OVER CALCULATED
	10:00 - 11:30	1.50	TRP	1	BREAK BIT & LAY DOWN MUD MOTOR, FUNCTIONED BLIND RAMS (ROTARY TABLE WOULD NOT STAY LOCKED TO BREAK BIT, LOCK NEEDS TO BE REPAIRED)
	11:30 - 12:30	1.00	LOC	7	CLEAN SHAKER TANK
	12:30 - 13:30	1.00	TRP	1	PICK UP & SURFACE TEST NEW MUD MOTOR
	13:30 - 15:00	1.50	TRP	10	MAKE UP BIT, TRIP IN BHA & BREAK CIRC.
	15:00 - 16:30	1.50	RIG	6	CUT DRLG LINE & RESET COM
	16:30 - 17:30	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE
	17:30 - 20:30	3.00	TRP	10	TRIP IN, BREAK CIRC. EVERY 1000'
	20:30 - 21:00	0.50	REAM	1	WASH 35' TO BOTTOM, NO FILL
	21:00 - 06:00	9.00	DRL	1	DRILL F/ 5225'-5339', WOB- 8-14K, RPM- 165 COMBINED, GPM- 685, MW- 9.2, VIS- 43, LCM- 6%, SEEPING 2 BBLS/HR
1/28/2008	06:00 - 12:30	6.50	DRL	1	DRILL F/ 5339'-5399', WOB- 10-13K, RPM- 165 COMBINED, GPM- 685, MW- 9.2, VIS- 42, LCM- 5%, SHAKING OUT LCM SLOWLY, SEEPING 2 BBLS/HR
	12:30 - 13:30	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION TOP PIPE RAMS & COM
	13:30 - 06:00	16.50	DRL	1	DRILL F/ 5399'-5643', WOB- 8-13K, RPM- 165 COMBINED, GPM- 685, MW- 9.2, VIS- 42, LCM- 5%, SEEPING 2-3 BBLS/HR, DRLG WITH ONE SHAKER BYPASSED
1/29/2008	06:00 - 08:30	2.50	DRL	1	DRILL F/ 5643'-5675', WOB- 8-13K, RPM- 165 COMBINED, GPM- 685, MW- 9.2, VIS- 42, LCM- 5%, BIT BALLING STARTED @ 5660', PUMPING 15 BBL BIT

CONFIDENTIAL



## Operations Summary Report

Well Name: TU 3-35-7-21ST2

Location: 35- 7-S 21-E 26

Rig Name: UNIT

Spud Date: 12/5/2007

Rig Release: 4/26/2008

Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
1/29/2008	06:00 - 08:30	2.50	DRL	1	BALLING SWEEPS AS NEEDED, SHAKING LCM OUT SLOWLY, SEEPING 1-2 BBLS/HR
	08:30 - 09:30	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION ANNULAR & COM
	09:30 - 06:00	20.50	DRL	1	DRILL F/ 5675'-5875', WOB- 8-15K, RPM- 165-185, GPM- 685-728, MW- 9.2, VIS- 43, LCM- 4%, PUMPING 15 BBL BIT BALLING SWEEPS AS NEEDED. SHAKING OUT LCM SLOWLY, SEEPING 1-2 BBLS/HR
1/30/2008	06:00 - 11:30	5.50	DRL	1	DRILL F/ 5872'-5921', WOB- 8-15K, RPM- 170 COMBINED, GPM- 728, MW- 9.2, VIS- 43, LCM- 4%, SHAKERS PARTIALLY BYPASSED, SEEPING 1-2 BBLS/HR
	11:30 - 12:30	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION LOWER PIPE RAMS & COM
	12:30 - 14:30	2.00	DRL	1	DRILL F/ 5921'-5941', DRLG WITH SAME PARAMETERS, MW & VIS, LCM- 3%, SEEPING 1-2 BBLS/HR
	14:30 - 15:00	0.50	SUR	1	DROP SURVEY & CHECK F/ FLOW
	15:00 - 20:00	5.00	TRP	10	PUMP TRIP SLUG & TRIP OUT (TIGHT HOLE F/ 4625'-4469') HOLE FILL 30 BBLS OVER CALCULATED
	20:00 - 20:30	0.50	TRP	1	BREAK BIT & LAY DOWN MUD MOTOR, FUNCTIONED BLIND RAMS
	20:30 - 21:30	1.00	TRP	1	PICK UP & SURFACE TEST MUD MOTOR
	21:30 - 02:30	5.00	TRP	10	TRIP IN SLOWLY, BREAK CIRC. EVERY 1000', INSTALLED ROT. HEAD
	02:30 - 03:00	0.50	REAM	1	REAM THRU TIGHT SPOT F/ 4560'-4600'
	03:00 - 04:00	1.00	TRP	10	TRIP IN SLOWLY
	04:00 - 04:30	0.50	REAM	1	WASH 65' TO BOTTOM WITH NO FILL
	04:30 - 06:00	1.50	DRL	1	DRILL F/ 5941'-5960', WOB- 8-10K, RPM- 158 COMBINED, GPM- 642, MW- 9.1, VIS- 48, LCM- 2%, SHAKERS PARTIALLY BYPASSED, SEEPING 1-2 BBLS/HR
1/31/2008	06:00 - 02:00	20.00	DRL	1	DRILL F/ 5960'-6108', WOB- 8-12K, RPM- 165 COMBINED, GPM- 685, MW- 9.1, VIS- 43, LCM- 3%, SEEPING 2-3 BBLS/HR, SHAKERS PARTIALLY BYPASSED, PUMPING 10 BBL BIT BALLING & LCM SWEEPS HOURLY.
	02:00 - 03:00	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION ANNULAR & COM
	03:00 - 06:00	3.00	DRL	1	DRILL F/ 6108'-6125', DRLG WITH SAME PARAMETERS, MW & VIS, PUMPING 10 BBL BIT BALLING & LCM SWEEPS HOURLY, SEEPING 2-3 BBLS/HR
2/1/2008	06:00 - 12:00	6.00	DRL	1	DRILL F/ 6125'-6167', WOB- 12-16K, RPM- 165 COMBINED, GPM- 685, MW- 9, VIS- 43, LCM- 4%, SHAKERS PARTIALLY BYPASSED, SEEPING 2-3 BBLS/HR, PUMPING 10 BBL LCM SWEEPS HOURLY
	12:00 - 13:00	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION HCR VALVE & COM
	13:00 - 18:00	5.00	DRL	1	DRILL F/ 6167'-6195', ADJUSTED WOB, RPM, & GPM TO TRY IMPROVE ROP, BIT SLOWED TO 3'/HR
	18:00 - 19:00	1.00	CIRC	1	CIRC. & MIX TRIP SLUG
	19:00 - 19:30	0.50	CIRC	1	PUMP TRIP SLUG & BLOW DOWN STANDPIPE
	19:30 - 00:00	4.50	TRP	10	TRIP OUT F/ BIT #9, (TIGHT HOLE F/ 5985'-5901'), FUNCTIONED COM & PULLED ROT. HEAD, HOLE FILL 24 BBLS OVER CALCULATED
	00:00 - 00:30	0.50	TRP	1	BREAK BIT & LAY DOWN MUD MOTOR, FUNCTIONED BLIND RAMS
	00:30 - 01:30	1.00	TRP	1	PICK UP & SURFACE TEST MUD MOTOR
	01:30 - 06:00	4.50	TRP	10	TRIP IN SLOWLY, BREAK CIRC. EVERY 1000'
2/2/2008	06:00 - 07:00	1.00	TRP	2	TRIP IN TO HOLE - ADJUSTED AND FUNCTIONED C.O.M. - FILLED AT 5311
	07:00 - 08:00	1.00	REAM	1	SAFETY WASH AND REAM 30' TO BOTTOM - 6' OF SOFT FILL
	08:00 - 14:30	6.50	DRL	1	DRILL FROM 6195 TO 6231
	14:30 - 15:00	0.50	EOP	1	CHANGE OUT SUPER CHOKE PANEL
	15:00 - 18:00	3.00	DRL	1	DRILL FROM 6231 TO 6240
	18:00 - 23:00	5.00	DRL	1	DRILL FROM 6240 TO 6257 - FINAL BIT WT. = 34K - WILL NOT DRILL -100% HARD SHALE
	23:00 - 00:00	1.00	CIRC	1	CIRCULATE HOLE AND PUMP TRIP SLUG
	00:00 - 04:30	4.50	TRP	10	BLOW DOWN KELLY AND TRIP OUT - COUPLE SMALL TIGHT SPOTS BETWEEN 5872 TO 5850 - PULLED SLOW AND WENT THRU
	04:30 - 05:30	1.00	TRP	1	DRAIN MUD MOTOR - CHANGE OUT BITS - CLEAN FLOOR FOR TRIP IN
	05:30 - 06:00	0.50	TRP	2	START TRIPPING TO SHOE FOR CUTTING DRILL LINE - REFILL TRIP TANK

CONFIDENTIAL

## Operations Summary Report

Well Name: TU 3-35-7-21ST2

Location: 35-7-S 21-E 26

Rig Name: UNIT

Spud Date: 12/5/2007

Rig Release: 4/26/2008

Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
2/3/2008	06:00 - 06:30	0.50	TRP	2	TRIP BHA TO SHOE
	06:30 - 07:30	1.00	RIG	6	CUT DRILL LINE
	07:30 - 11:00	3.50	TRP	2	TRIP TO ONE STAND FROM BOTTOM
	11:00 - 11:30	0.50	EOP	1	INSTALL RT. HEAD
	11:30 - 12:00	0.50	REAM	1	SAFETY WASH AND REAM 40' TO BOTTOM - NO FILL
	12:00 - 17:30	5.50	DRL	1	DRILL FROM 6257 TO 6295
	17:30 - 18:00	0.50	RIG	1	SERVICE RIG
	18:00 - 06:00	12.00	DRL	1	DRILL FROM 6295 TO 6375 - SEEPING 4 BBLs PER HOUR WITH 3% LCM - TO KEEP BIT FROM BOUNCING WE ARE RUNNING 38K ON BIT WITH 727 GALLONS - SURFACE RPM = 38
2/4/2008	06:00 - 18:00	12.00	DRL	1	DRILL FROM 6375 TO 6468
	18:00 - 22:30	4.50	DRL	1	DRILL FROM 6468 TO 6486 - BIT DIED AFTER CONNECTION
	22:30 - 23:00	0.50	CIRC	1	CIRCULATE WHILE BUILDING TRIP SLUG
	23:00 - 00:00	1.00	SUR	1	DROP SURVEY AND PUMP TRIP SLUG
	00:00 - 03:00	3.00	TRP	10	TRIP OUT - TIGHT FROM 6317 TO 6275 - BLOW DOWN KELLY
	03:00 - 03:30	0.50	EOP	1	PULL WORN RT. OUT AND OFF PIPE
	03:30 - 04:30	1.00	TRP	10	FINISH TRIP OUT
	04:30 - 06:00	1.50	TRP	10	PULL AND LD SURVEY TOOL (MIS-RUN) - DRAIN MOTOR AND CHANGE OUT BITS - CLEAN FLOOR FOR TRIP IN
2/5/2008	06:00 - 07:00	1.00	TRP	2	TRIP BHA IN TO HOLE TO SHOE
	07:00 - 08:00	1.00	RIG	1	SERVICE RIG AND TOP DRIVE
	08:00 - 09:00	1.00	RIG	2	RIG REPAIR - FIX DRAWWORKS OIL LEAK - REPAIR LINE GUIDE
	09:00 - 12:30	3.50	TRP	2	FINISH TRIPPING BHA AND DRILL PIPE TO FOUR STANDS FROM BOTTOM FILLING EVERY 1.5 ROWS
	12:30 - 13:00	0.50	EOP	1	INSTALL NEW RT. HEAD
	13:00 - 14:30	1.50	REAM	1	SAFETY WASH AND REAM 350' TO BOTTOM - TIGHT SPOTS FROM TRIP OUT CLEANED UP GOOD
	14:30 - 18:00	3.50	DRL	1	DRILL FROM 6586 TO 6510
	18:00 - 21:00	3.00	DRL	1	DRILL FROM 6510 TO 6532 - TD FOR LOGS
	21:00 - 22:00	1.00	CIRC	1	CIRCULATE BOTTOMS UP FOR SHORT TRIP
	22:00 - 23:00	1.00	TRP	14	SHORT TRIP OUT 5 STANDS WET - NO DRAG - TRIP TO BOTTOM
	23:00 - 00:00	1.00	CIRC	1	CIRCULATE BOTTOMS UP
	00:00 - 00:30	0.50	SUR	1	DROP SURVEY - CHECK FOR FLOW - PUMP TRIP SLUG
	00:30 - 03:00	2.50	TRP	2	BLOW DOWN KELLY - TRIP OUT WITH SLM
	03:00 - 03:30	0.50	EOP	1	PULL RT. HEAD
	03:30 - 05:00	1.50	TRP	2	FINISH TRIP OUT - PULL SURVEY TOOL - DRAIN MOTOR
	05:00 - 06:00	1.00	EOP	1	TRYING TO DRAIN STACK AND PULL WEAR BUSHING
2/6/2008	06:00 - 06:30	0.50	EOP	1	FINISH PULLING WEAR BUSHING AND PICK UP FLOOR
	06:30 - 07:30	1.00	LOG	1	HOLD SAFETY MEETING AND RIG UP LOGGERS
	07:30 - 14:30	7.00	LOG	1	RUN OPEN HOLE LOGS WITH NO HOLE PROBLEMS
	14:30 - 15:00	0.50	LOG	1	RIG DOWN LOGGERS
	15:00 - 16:00	1.00	RIG	1	SERVICE RIG AND TOP DRIVE
	16:00 - 16:30	0.50	TRP	2	TRIP TO SHOE
	16:30 - 18:00	1.50	RIG	2	REPLACE UPPER KELLY VALVE ON TOP DRIVE
	18:00 - 19:00	1.00	RIG	2	FINISH RIG REPAIRS
	19:00 - 22:30	3.50	TRP	2	TRIP IN TO HOLE - FILLING EVERY 1.5 ROWS
	22:30 - 23:00	0.50	EOP	1	INSTALL RT. HEAD
	23:00 - 00:30	1.50	TRP	2	FINISH TRIP TO BOTTOM - HOLE CLEAN
	00:30 - 02:00	1.50	CIRC	1	CIRCULATE AND CONDITION MUD
2/7/2008	02:00 - 02:30	0.50	WCL	3	CHECK FOR FLOW AND PUMP PILL FOR TRIP OUT
	02:30 - 06:00	3.50	TRP	2	TRIP OUT FOR RUNNING CASING
	06:00 - 08:30	2.50	TRP	1	FINISH TRIP OUT AND LD 8" EQUIPMENT
	08:30 - 09:30	1.00	TRP	1	LD SUBS - CLEAN RIG FLOOR - HOLD SAFETY MEETING

CONFIDENTIAL

## Operations Summary Report

Well Name: TU 3-35-7-21ST2

Location: 35- 7-S 21-E 26

Rig Name: UNIT

Spud Date: 12/5/2007

Rig Release: 4/26/2008

Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
2/7/2008	09:30 - 11:00	1.50	CSG	1	RIG UP CASING CREW
	11:00 - 18:00	7.00	CSG	2	PICK UP AND RUN CASIN - FILLING EVERY 10 AND CIRC FOR 10 MINUTES
	18:00 - 23:30	5.50	CSG	2	PICK UP AND RUN CASING SLOWLY - STILL NO RETURNS
	23:30 - 00:30	1.00	CSG	2	RUN IN LANDING JOINT AND SET
	00:30 - 02:30	2.00	CSG	1	RIG DOWN CASING CREWS
	02:30 - 05:30	3.00	BOP	1	SET PACK OFF ASSEMBLY - TEST - AND CEMENT ISOLATION TOOL
	05:30 - 06:00	0.50	CMT	1	START RIGGING UP CEMENTERS WHILE WAITING ON LAST OF CEMENT TO SHOW UP
2/8/2008	06:00 - 11:00	5.00	CMT	1	START RIGGING UP CEMENTERS AND EQUIPMENT - CEMENT HEAD LEAKING - WAIT FOR REPLACMENT FROM VERNAL
	11:00 - 11:30	0.50	CMT	2	HOLD SAFETY MEETING AND PRESSURE TEST LINES
	11:30 - 18:00	6.50	CMT	2	CEMENT - NO RETURNS - CEMENT HEAD ON PUMP TRCUK KEPT PLUGGING UP - LOST AIR TO PUMP TRUCK FOR 15 MIN. AFTER DROPPING PLUG - NO RETURNS
	18:00 - 19:00	1.00	CMT	2	FINISH CEMENT - DID NOT BUMP - FINAL PRESSURE = 481 PSI - FLOAT HELD
	19:00 - 19:30	0.50	CMT	2	PUMP CAP - NO PSI
	19:30 - 21:00	1.50	CMT	1	CLEAN UP AND RIG DOWN CEMENTERS
	21:00 - 22:00	1.00	EOP	1	RIG DOWN CEMENT ISOLATION TOOL AND LANDING JOINT
2/9/2008	22:00 - 04:00	6.00	EOP	2	DO 5000 PSI BOP TEST - ROTATE PUMP LINERS - BUILD 550 BBLs OF MUD VOLUME
	04:00 - 05:00	1.00	RIG	1	SERVICE RIG AND TOP DRIVE
	05:00 - 06:00	1.00	EOP	1	INSTALL WEAR BUSHING
	06:00 - 09:30	3.50	ISP	1	INSPECT BHA - OK
	09:30 - 14:00	4.50	TRP	2	TEST MOTOR AND TRIP IN TO HOLE - PICK UP EXTRA COLLARS
	14:00 - 17:30	3.50	DRL	4	TAG PLUG AT 5352 - DRILL PLUG AND CEMENT TO 6336
	17:30 - 18:00	0.50	CIRC	1	CIRCULATE BOTTOMS UP FOR TESTING CASING
	18:00 - 18:30	0.50	EQT	2	TEST CASING TO 1500 PSI - OK
	18:30 - 19:30	1.00	DRL	4	DRILL CEMENT AND FLOAT COLLAR - 6366 TO 6502 - FLOAT NOT HOLDING
	19:30 - 20:30	1.00	CIRC	1	CIRCULATE BOTTOMS UP WHILE BUILDING TRIP SLUG, PUMP SLUG
	20:30 - 21:30	1.00	TRP	13	TRIP OUT DO TO FAILED FLOAT
	21:30 - 22:00	0.50	EOP	1	PULL RT. HEAD
	22:00 - 00:30	2.50	TRP	13	FINISH TRIP OUT
	00:30 - 01:30	1.00	RIG	1	SERVICE RIG AND TOP DRIVE
2/10/2008	01:30 - 03:00	1.50	RIG	8	CLEAN OUT SUCTIONS AND SUCTION SCREENS - REPAIR FLOAT - CHECK BIT
	03:00 - 06:00	3.00	TRP	2	TRIP IN TO HOLE - FILLING EVERY 2 ROWS
	06:00 - 07:00	1.00	TRP	2	TRIP IN FILLING EVERY 2 ROWS
	07:00 - 07:30	0.50	BOP	1	INSTALL RT. HEAD
	07:30 - 08:00	0.50	OTH		CHANGE OUT LOAD CELL FOR TORQUE MACHINE
	08:00 - 09:00	1.00	RIG	6	CUT DRILL LINE
	09:00 - 10:00	1.00	RIG	1	SERVICE RIG AND TOP DRIVE
	10:00 - 10:30	0.50	DRL	4	FINISH DRILLING SHOE TRACK AND 10' FOOT OF OPEN HOLE
	10:30 - 11:30	1.00	CIRC	1	CIRCULATE BOTTOMS UP FOR FIT
	11:30 - 12:00	0.50	EQT	2	TRIED TO FIT FOR 13.5 - WOULD NOT HOLD - WILL HOLD 13.1
	12:00 - 18:00	6.00	DRL	1	DRILL FROM 6532 TO 6742 - STARTED PUMPING BIT BALLING SWEEPS AT 6700 FEET
2/11/2008	18:00 - 06:00	12.00	DRL	1	DRILL FROM 6742 TP 6908 - STILL RUNNING BIT BALLING SWEEPS - LOOKING FOR WASATCH AT AROUND 6942 ALONG BETTER P RATE - HEAVY CLAYS STILL COMING OVER AT PRESENT ( DARK GRAYS AND DEEP REDS)
	06:00 - 07:00	1.00	DRL	1	DRILL FROM 6908 TO 6921
	07:00 - 08:00	1.00	RIG	1	SERVICE RIG AND TOP DRIVE
	08:00 - 18:00	10.00	DRL	1	DRILL FROM 6921 TO 7091
	18:00 - 06:00	12.00	DRL	1	DRILL FROM 7091 TO 7215 - STILL RED AND GRAY CLAYS - HAVE

## Operations Summary Report

Well Name: TU 3-35-7-21ST2

Location: 35- 7-S 21-E 26

Rig Name: UNIT

Spud Date: 12/5/2007

Rig Release: 4/26/2008

Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
2/11/2008	18:00 - 06:00	12.00	DRL	1	DIFFERANT SWEEPS AND DRILLING PERRAMATERS AND STILL NOT HAPPY WITH PRATE BUT NICE TO HAVE SHORT REPORT - WILL DISCUSS WITH JIM D.
2/12/2008	06:00 - 17:00	11.00	DRL	1	DRILL FROM 7215 TO 7370 - SWEEPS HELPING AND NEEDED -
	17:00 - 18:00	1.00	RIG	1	SERVICE RIG AND TOP DRIVE - CHANGE OUT RT. HEAD - HAS BAD BEARING PACK
2/13/2008	18:00 - 06:00	12.00	DRL	1	DRILL FROM 7370 TO 7515 - HEAVY CLAYS - SWEEPS ARE WORKING -
	06:00 - 14:30	8.50	DRL	1	DRILL FROM 7515 TO 7597
	14:30 - 15:30	1.00	RIG	1	SERVICE RIG AND TOP DRIVE
	15:30 - 18:00	2.50	DRL	1	DRILL FROM 7597 TO 7650 - 40% SHALE - 30% CLAYS AND SILT WITH 30% SANDSTONE - GALLONS AT 510 WITH WT. AT 15K TO 20K - IF NOT TRIPPING TODAY WE WILL WIRELINE SURVEY
2/14/2008	06:00 - 12:00	6.00	DRL	1	DRILL FROM 7778 TO 7878
	12:00 - 13:00	1.00	RIG	1	CIRCULATE BOTTOMS UP WHILE DOING RIG SERVICE
	13:00 - 13:30	0.50	SUR	1	WIRELINE SURVEY = .4 = 197.8
	13:30 - 18:00	4.50	DRL	1	DRILL FROM 7878 TO 7950
	18:00 - 06:00	12.00	DRL	1	DRILL FROM 7950 TO 8094 - LOST 150PSI AT 0100, POSSIBLY A JET - DRILLING SAME LITHOLOGY AS YESTERDAY AFTERNOON BUT HAVING TO ADD MORE BIT WT. TO DRILL SAME ROP
2/15/2008	06:00 - 07:30	1.50	DRL	1	DRILL FROM 8094 TO 8110 - NEEDS EXTRA WT. TO DRILL AND FALLING OFF QUICKLY
	07:30 - 08:30	1.00	CIRC	1	CIRCULATE BOTTOMS UP FOR TRIP OUT
	08:30 - 09:30	1.00	RIG	1	SERVICE RIG AND TOP DRIVE
	09:30 - 10:00	0.50	SUR	1	DROP SURVEY - 8065' - 1.7 - 151.5
	10:00 - 10:30	0.50	CIRC	1	CHECK FOR FLOW AND PUMP PILL
	10:30 - 11:00	0.50	TRP	10	TRIP OUT 15 STANDS
	11:00 - 11:30	0.50	EOP	1	PULL RT HEAD
	11:30 - 15:30	4.00	TRP	10	FINISH TRIP OUT - HOLE SMOOTH
	15:30 - 16:30	1.00	TRP	1	DRAIN MUD MOTOR AND LD SURVEY TOOL - CHANGE OUT MM AND BIT
	16:30 - 17:00	0.50	CIRC	1	SURFACE TEST MUD MOTOR
	17:00 - 18:00	1.00	TRP	2	TRIP BHA INTO HOLE
	18:00 - 19:00	1.00	RIG	2	RIG REPAIR - REPAIR LINE GUIGE AND REPAIR TARP ON TOP DRIVE LINES
	19:00 - 21:00	2.00	TRP	2	TRIP IN TO HOLE FILLING EVERY 2 ROWS
	21:00 - 21:30	0.50	EOP	1	INSTALL RT. HEAD
	21:30 - 22:30	1.00	TRP	2	FINISH LAST TRIP TO BOTTOM - HOLE SMOOTH - NO FILL
2/16/2008	22:30 - 06:00	7.50	DRL	1	DRILL FROM 8110 TO 8353 - BIT DIGGING LIKE MAD BADGER WITH SOFT GROUND - WHEN BADGER SLOWS WE HIT IT WITH A 10 BBL SWEEP - NO SEEPAGE AT PRESENT TIME
	06:00 - 06:30	0.50	DRL	1	DRILL F/ 8343'-8366', WOB- 6-8K, RPM- 195 COMBINED, GPM- 514, MW- 9.5, VIS- 45
	06:30 - 08:00	1.50	CIRC	2	LOST TOTAL RETURNS- PUMPED THREE 20 BBLs PILLS WITH 10% LCM, REGAINED FULL RETURNS, LOST 140 BBLs
	08:00 - 11:00	3.00	DRL	1	DRILL F/ 8366'-8437', WOB- 8-10K, RPM- 172 COMBINED, GPM- 430, MW- 9.5, VIS- 45, SEEPING 2-3 BBLs/HR, PUMPING 10 BBL SWEEPS WITH 10% LCM HOURLY
	11:00 - 11:30	0.50	RIG	2	CHANGE OUT ROT. HEAD BEARING ASSEMBLY
	11:30 - 12:30	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION ANNULAR & COM
2/17/2008	12:30 - 06:00	17.50	DRL	1	DRILL F/ 8437'-8792', WOB- 6-12K, RPM- 172 COMBINED, GPM- 430, MW- 9.45, VIS- 43, SEEPING 2-3 BBLs/HR, PUMPING LCM & BIT BALLING SWEEPS EVERY 1/2 HR
	06:00 - 11:30	5.50	DRL	1	DRILL F/ 8792'-8899', WOB- 8-12K, RPM- 175 COMBINED, GPM- 430, MW- 9.4+, VIS- 43, PUMPING LCM & BIT BALLING SWEEPS HOURLY, SEEPING 2-3 BBLs/HR

## Operations Summary Report

Well Name: TU 3-35-7-21ST2

Location: 35- 7-S 21-E 26

Rig Name: UNIT

Spud Date: 12/5/2007

Rig Release: 4/26/2008

Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
2/17/2008	11:30 - 12:30	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION TOP PIPE RAMS & COM, CHANGED OIL IN TOP DRIVE MOTOR
	12:30 - 13:30	1.00	DRL	1	DRILL F/ 8899'-8915', DRLG WITH SAME PARAMETERS, MW & VIS
	13:30 - 14:00	0.50	RIG	3	CIRC. THRU & BLOW DOWN CHOKE MANIFOLD & GASBUSTER (THAWED OUT DISCHARGE LINE ON BUSTER)
	14:00 - 23:00	9.00	DRL	1	DRILL F/ 8915'-9054', WOB- 10-14K, RPM- 175 COMBINED, GPM- 430, MW- 9.4, VIS- 42, SEEPING 2-3 BBLS/HR, PUMPING BIT BALLING & LCM SWEEPS HOURLY
	23:00 - 23:30	0.50	RIG	2	RIG REPAIR- RESET SCR'S & RESTART #2 GENERATOR (RIG BLACKED OUT)
	23:30 - 06:00	6.50	DRL	1	DRILL F/ 9054'-9163' DRLG WITH SAME PARAMETERS, MW & VIS, SEEPING 2-3 BBLS/HR, PUMPING BIT BALLING & LCM SWEEPS AS NEEDED.
2/18/2008	06:00 - 11:00	5.00	DRL	1	DRILL F/ 9161'-9238', WOB- 10-14K. RPM- 175 COMBINED, GPM- 430, MW- 9.4, VIS- 43, PUMPING LCM & BIT BALLING SWEEPS AS NEEDED, SEEPING 2-3 BBLS/HR
	11:00 - 12:00	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION HCR & COM, CLEANED SUCTION LINES F/ BOTH PUMPS
	12:00 - 21:00	9.00	DRL	1	DRILL F/ 9238'-9348', WOB- 10-18K, RPM- 175 COMBINED, GPM- 430, MW- 9.4, VIS- 42, SEEPING 2-3 BBLS/HR, PUMPING LCM & BIT BALLING SWEEPS AS NEEDED
	21:00 - 21:30	0.50	CIRC	1	MIX TRIP SLUG & FILL TRIP TANK
	21:30 - 22:00	0.50	SUR	1	DROP SURVEY, CHECK FOR FLOW, PUMP TRIP SLUG & BLOW DOWN TOP DRIVE & STANDPIPE
	22:00 - 04:30	6.50	TRP	10	TRIP OUT F/ BIT #14, FUNCTIONED COM & PULLED ROT. HEAD AT CSG SHOE, HOLE FILL 16 BBLS OVER CALCULATED
2/19/2008	04:30 - 05:00	0.50	TRP	1	RETRIEVE SURVEY TOOL, BREAK BIT & LAY DOWN MUD MOTOR
	05:00 - 06:00	1.00	TRP	1	PICK UP & SURFACE TEST NEW MUD MOTOR
	06:00 - 07:00	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE
	07:00 - 08:00	1.00	RIG	2	RESET TORQUE VALUES ON TOP DRIVE & CHANGE OUT SAVER SUB
	08:00 - 09:00	1.00	TRP	1	PICK UP & SURFACE TEST NEW MUD MOTOR
	09:00 - 13:30	4.50	TRP	10	TRIP IN, FILL PIPE & BREAK CIRC. EVERY 3000'
	13:30 - 14:00	0.50	TRP	10	INSTALL ROT. HEAD @ 6490'
	14:00 - 14:30	0.50	RIG	2	RIG REPAIR- SCR PROBLEMS (RESET SLIP SPROCKET)
	14:30 - 15:00	0.50	CIRC	1	FILL PIPE & CIRC. F/ 20 MIN @ 80 SPM
	15:00 - 16:30	1.50	TRP	10	TRIP IN, BREAK CIRC. EVERY 1500'
	16:30 - 17:00	0.50	REAM	1	WASH 105' TO BOTTOM WITH 4' OF FILL
2/20/2008	17:00 - 06:00	13.00	DRL	1	DRILL F/ 9348'-9555', WOB- 10-15K, RPM- 110 COMBINED, GPM- 430-450, MW- 9.4, VIS- 43, SEEPING 2-3 BBLS/HR, PUMPING BIT BALLING & LCM SWEEPS AS NEEDED
	06:00 - 14:30	8.50	DRL	1	DRILL F/ 9555'-9711', WOB- 12-16K, RPM- 110 COMBINED, GPM- 450, MW- 9.4, VIS- 42, SEEPING 2-3 BBLS/HR, PUMPING LCM & BIT BALLING SWEEPS AS NEEDED.
	14:30 - 15:30	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTIONED LOWER PIPE RAMS & COM
2/21/2008	15:30 - 06:00	14.50	DRL	1	DRILL F/ 9711'-9960', WOB- 12/16K, RPM- 110 COMBINED, GPM- 450, MW- 9.4, VIS- 42, BG GAS- 30u, CONN GAS- 100u, SEEPING 5-6 BBLS/HR, PUMPING BIT BALLING & LCM SWEEPS AS NEEDED
	06:00 - 09:30	3.50	DRL	1	DRILL F/ 9960'-10016', WOB- 12-16K, RPM- 110 COMBINED, GPM- 450, MW- 9.5, VIS- 43, BG GAS- 30u, SEEPING 5-6 BBLS/HR, PUMPING BIT BALLING & LCM SWEEPS AS NEEDED
	09:30 - 10:30	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTIONED ANNULAR & COM
	10:30 - 01:00	14.50	DRL	1	DRILL F/ 10016'-10210', WOB- 12-18K, RPM- 115 COMBINED, GPM- 470, MW- 9.6, VIS- 42, BG GAS- 20u, CONN GAS- 40u, SEEPING 2-3 BBLS/HR, PUMPING BIT BALLING & LCM SWEEPS AS NEEDED.
	01:00 - 02:00	1.00	REAM	1	REAM THRU TIGHT HOLE F/ 10208'-10165'

## Operations Summary Report

Well Name: TU 3-35-7-21ST2

Location: 35- 7-S 21-E 26

Rig Name: UNIT

Spud Date: 12/5/2007

Rig Release: 4/26/2008

Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
2/21/2008	02:00 - 06:00	4.00	DRL	1	DRILL F/ 10210'-10290', DRLG WITH SAME PARAMETERS, MW & VIS, SEEPING 2-3 BBLS/HR, PUMPING BIT BALLING & LCM SWEEPS AS NEEDED.
2/22/2008	06:00 - 10:30	4.50	DRL	1	DRILL F/ 10290'-10383', WOB- 12-18K, RPM- 115 COMBINED, GPM- 470, MW- 9.7, VIS- 45, BG GAS- 25u, CONN GAS- 380U, SEEPING 2-3 BBLS/HR, PUMPING BIT BALLING & LCM SWEEPS AS NEEDED
	10:30 - 11:30	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION LOWER PIPE RAMS & COM
	11:30 - 06:00	18.50	DRL	1	DRILL F/ 10383'-10675', WOB- 10-18K, RPM- 115 COMBINED, GPM- 470, MW- 9.8, VIS- 45, BG GAS- 20u, SEEPING 2-3 BBLS/HR, PUMPING BIT BALLING & LCM SWEEPS AS NEEDED.
2/23/2008	06:00 - 14:30	8.50	DRL	1	DRILL F/ 10675'-10790', WOB- 12-18K, RPM- 110 COMBINED, GPM- 430, MW- 9.8, VIS- 44, BG GAS- 20u, CONN GAS- 50u, SEEPING 5-6 BBLS/HR, PUMPING BIT BALLING & LCM SWEEPS AS NEEDED
	14:30 - 17:30	3.00	REAM	1	REAM OUT TIGHT HOLE F/ 10779'-10751', START RAISING MW TO 10 PPG
	17:30 - 19:30	2.00	DRL	1	DRILL F/ 10779'-10812', DRLG WITH SAME PARAMETERS, MW- 9.9, VIS- 45, SEEPING 6 BBLS/HR, PUMPING BIT BALLING & LCM SWEEPS HOURLY
	19:30 - 20:30	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION TOP PIPE RAMS & COM
	20:30 - 21:30	1.00	DRL	1	DRILL F/ 10812'-10822', DRLG WITH SAME PARAMETERS, MW & VIS, ROP SLOWED TO 5'/HR
	21:30 - 23:00	1.50	CIRC	1	CIRC., BUILD TRIP SLUG & SPOT 100 BBL 15% LCM PILL
	23:00 - 00:00	1.00	SUR	1	DROP SURVEY, PUMP TRIP SLUG & BLOW DOWN SURFACE LINES.
	00:00 - 03:30	3.50	TRP	10	TRIP OUT F/ BIT #15 (FIRST 5 STDs PULLED 30-50K OVER STRING WT)
	03:30 - 04:00	0.50	TRP	10	PULL ROT. HEAD RUBBER @ 6450'
	04:00 - 06:00	2.00	TRP	10	TRIP OUT F/ BIT #15
2/24/2008	06:00 - 07:00	1.00	TRP	10	TRIP OUT BHA
	07:00 - 07:30	0.50	TRP	1	RETRIEVE SURVEY TOOL, BREAK BIT & LAY DOWN MUD MOTOR
	07:30 - 08:30	1.00	TRP	1	PICK UP & SURFACE TEST MUD MOTOR
	08:30 - 11:30	3.00	TRP	10	TRIP IN SLOWLY, BREAK CIRC AFTER BHA, THEN EVERY 3000'
	11:30 - 13:00	1.50	TRP	2	TRIP OUT 30 STDs TO RETRIEVE DP SCREEN (UNIT DRLG TIME)
	13:00 - 15:00	2.00	TRP	10	TRIP IN SLOWLY, BREAK CIRC. EVERY 3000'
	15:00 - 15:30	0.50	TRP	10	INSTALL ROT. HEAD
	15:30 - 16:30	1.00	RIG	6	CUT DRLG LINE
	16:30 - 17:30	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE
	17:30 - 20:00	2.50	TRP	10	TRIP IN SLOWLY, BREAK CIRC. EVERY 2000'
	20:00 - 21:30	1.50	REAM	1	WASH & REAM TO BOTTOM F/ 10444'-10822', NO FILL
	21:30 - 06:00	8.50	DRL	1	DRILL F/ 10822'-11003', WOB- 8-12K, RPM- 110 COMBINED, GPM- 430, MW- 10, VIS- 45, BG GAS- 20u, CONN GAS- 80u, TRIP GAS- 170u, SEEPING 5-6 BBLS/HR, PUMPING BIT BALLING & LCM SWEEPS HOURLY
2/25/2008	06:00 - 11:00	5.00	DRL	1	DRILL F/ 11003'-11130', WOB- 8-12K, RPM- 110 COMBINED, GPM- 430, MW- 9.9, VIS- 43, BG GAS- 75u, CONN GAS- 1235u, SEEPING 5-6 BBLS/HR, PUMPING BIT BALLING & LCM SWEEPS HOURLY
	11:00 - 12:00	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION ANNULAR & COM
	12:00 - 06:00	18.00	DRL	1	DRILL F/ 11130'-11417', WOB- 12-18K, RPM- 110 COMBINED, GPM- 430, MW- 10, VIS- 44, BG GAS- 60u, CONN GAS- 175u, SEEPING 8 BBLS/HR, PUMPING BIT BALLING & LCM SWEEPS HOURLY
2/26/2008	06:00 - 13:30	7.50	DRL	1	DRILL F/ 11417'-11514', WOB- 10-16K, RPM- 110 COMBINED, GPM- 430, MW- 10.1, VIS- 45, BG GAS- 50u, CONN GAS- 150u, SEEPING 4-5 BBLS/HR, PUMPING BIT BALLING & LCM SWEEPS HOURLY
	13:30 - 14:30	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION TOP PIPE RAMS & COM
	14:30 - 06:00	15.50	DRL	1	DRILL F/ 11514'-11702', WOB- 10-16K, RPM- 110 COMBINED, GPM- 430, MW- 10.2, VIS- 45, BG GAS- 40u, CONN GAS- 110u, SEEPING 8 BBLS/HR, PUMPING LCM SWEEPS AS NEEDED
2/27/2008	06:00 - 07:00	1.00	DRL	1	DRILL F/ 11702'-11710', WOB- 12-18K, RPM- 110 COMBINED, GPM- 430, MW- 10.2, VIS- 45, BG GAS- 40u, SEEPING 8 BBLS/HR, PUMPING LCM SWEEPS AS

CONFIDENTIAL

## Operations Summary Report

Well Name: TU 3-35-7-21ST2

Location: 35- 7-S 21-E 26

Rig Name: UNIT

Spud Date: 12/5/2007

Rig Release: 4/26/2008

Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
2/27/2008	06:00 - 07:00	1.00	DRL	1	NEEDED.
	07:00 - 07:30	0.50	RIG	3	CLEAN OUT SUCTION LINE FOR #1 PUMP
	07:30 - 12:00	4.50	DRL	1	DRILL F/ 11710'-11757', DRLG WITH SAME PARAMETERS, MW & VIS, PUMPING LCM SWEEPS AS NEEDED.
	12:00 - 13:00	1.00	CIRC	1	CIRC., MIX TRIP SLUG & FILL TRIP TANK
	13:00 - 13:30	0.50	SUR	1	DROP SURVEY & CHECK F/ FLOW
	13:30 - 16:00	2.50	TRP	10	PUMP TRIP SLUG & TRIP OUT F/ BIT #16
	16:00 - 16:30	0.50	RIG	2	REPAIR BREAK OUT CABLE ON BREAK OUT TONGS
	16:30 - 21:30	5.00	TRP	10	TRIP OUT TO BHA
	21:30 - 22:00	0.50	RIG	7	HOLD SAFETY MEETING WITH BHA INSPECTION CREW
	22:00 - 03:00	5.00	TRP	1	TRIP OUT INSPECTING BHA (EVERYTHING OK)
2/28/2008	03:00 - 04:00	1.00	TRP	1	RETRIEVE SURVEY TOOL, BREAK BIT & LAY DOWN MUD MOTOR, FUNCTIONED BLIND RAMS
	04:00 - 05:00	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, REPLACED BREAKOUT CABLE ON BREAKOUT TONGS
	05:00 - 06:00	1.00	TRP	1	PICK UP & SURFACE TEST MUD MOTOR
	06:00 - 07:30	1.50	TRP	1	CHANGE OUT BITS AND MUD MOTORS - SURFACE TEST MUD MOTOR
	07:30 - 12:30	5.00	TRP	2	TRIP TO SHOE
	12:30 - 13:00	0.50	EOP	1	INSTALL RT. HEAD
	13:00 - 17:00	4.00	TRP	2	FINISH TRIP TO BOTTOM - NO FILL - HOLE IN GOOD SHAPE
	17:00 - 18:00	1.00	DRL	1	DRILL FROM 11757 TO 11767 - BREAK BIT IN
	18:00 - 02:30	8.50	DRL	1	DRILL FROM 11767 TO 11896 - HOLE SEEPIG 7 BBLs PER HOUR - CONNECTIONS GOOD
	02:30 - 06:00	3.50	RIG	2	TOP DRIVE MOTOR DOWN WITH NO OIL PRESSURE - COMPUTER WILL NOT RESINK - TOP DRIVE HAND ON LOCATION - SHOULD GET ANSWER SOON
2/29/2008	06:00 - 15:30	9.50	RIG	2	TESCO, UNIT AND DETROIT MECHANICS WORKING ON POWER UNIT - REPAIRS DONE - BYPASS SHAKERS AS WE LOST RETURNS WHILE WAITING FOR REPAIRS, GET RETURNS BACK AND BUILD VOLUME WHILE BUILDING ACTIVE SYSTEM WITH 10% LCM
	15:30 - 16:00	0.50	RIG	2	CIRCULATE OIL IN SYSTEM TO WARM UP
	16:00 - 17:00	1.00	RIG	1	SERVICE RIG AND TOP DRIVE
	17:00 - 18:00	1.00	CIRC	1	WORK HOLE - GETTING HIGH ROTARY TORQUE AND HIGH DIFFERENTIAL WHILE TRYING TO WORK TO BOTTOM TO DRILL AHEAD
	18:00 - 19:00	1.00	CIRC	1	TRY TO GET TO DRILL
	19:00 - 20:00	1.00	TRP	14	SHORT TRIP 5 STANDS TO SEE IF IT HELPS
	20:00 - 20:30	0.50	DRL	1	DRILL FROM 11896 TO 11900 - 1800 PSI RT. TORQUE, 550 PSI DIFF. BIT WT. ONLY 10K
	20:30 - 21:30	1.00	CIRC	1	CIRCULATE BOTTOMS UP WHILE BUILDING TRIP SLUG AND FILLING TRIP TANK
	21:30 - 00:30	3.00	TRP	13	TRIP OUT FROM 11900 TO 6147
	00:30 - 01:00	0.50	EOP	1	PULL RT. HEAD
3/1/2008	01:00 - 01:30	0.50	TRP	13	TRIP OUT FROM 6147 TO 5097
	01:30 - 06:00	4.50	RIG	2	MAIN DRAWWORKS DRIVE CHAIN FALIED - DIAMOND 120 6 LINK - INSTALLED NEW DIAMOND CHAIN
	06:00 - 09:00	3.00	TRP	13	FINISH TRIP OUT - LEFT BIT, BEARING ASSEMBLY, DRIVESHAFT AND ROTOR IN HOLE
	09:00 - 10:00	1.00	RIG	1	SERVICE RIG AND TOP DRIVE
	10:00 - 13:30	3.50	FISH	5	GET FISHING HAND AND TOOLS SENT TO LOCATION
	13:30 - 15:00	1.50	FISH	5	UNLOAD TOOLS - STRAP ALL TOOLS - LD NON-MAG AND DRILLING JARS
	15:00 - 16:00	1.00	TRP	1	PICK UP AND RUN FISHING TOOLS
	16:00 - 18:00	2.00	TRP	2	TRIP BHA INTO HOLE
	18:00 - 21:00	3.00	TRP	2	TRIP INTO HOLE TO SHOE
	21:00 - 21:30	0.50	EOP	1	INSTALL RT. HEAD

## Operations Summary Report

Well Name: TU 3-35-7-21ST2

Location: 35- 7-S 21-E 26

Rig Name: UNIT

Spud Date: 12/5/2007

Rig Release: 4/26/2008

Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
3/1/2008	21:30 - 22:00	0.50	CIRC	1	CIRCULATE TRIP SLUG TO SURFACE
	22:00 - 06:00	8.00	RIG	2	REPAIR RIG - UNIT HAD MECHANIC TEAR APART AND DUE REPAIRS ON SHEARED STUDS ON LOW DRUM CLUTCH - LOOKING FOR REPAIRS TO BE DONE AROUND NOON
3/2/2008	06:00 - 14:30	8.50	RIG	2	REPAIR CLUCH ASSEMBLY
	14:30 - 17:00	2.50	TRP	2	TRIP INTO HOLE
	17:00 - 18:00	1.00	FISH	5	WASH OVER FISH - CHECK ONE MORE TIME WE HAD FISH - PUMP PRESSURE UP - OVER PULL 25K OVER
	18:00 - 19:00	1.00	CIRC	1	CIRCULATE WHILE BUILDING PILL AND FILLING TRIP TANK - PUMP PRESSURE STILL 250 PSI OVER
	19:00 - 23:30	4.50	TRP	2	PUMP SLUG - BLOW DOWN KELLY AND TRIP OUT - STANDS 3-4-5 HAD TIGHT SPOTS - WORKED OVER PULL TO 90K OVER - ONCE THRU TIGHT SPOTS WE STILL HAD 25K OVER PULL - KEEP COMING OUT - USE PIPE SPINNERS COMING OUT - TRIP TO SHOE
	23:30 - 00:00	0.50	EOP	1	PULL RT HEAD
	00:00 - 04:30	4.50	TRP	2	TRIP OUT USING PIPE SPINNERS - HOLE FILL = 28 BBLs OVER CALCULATED
	04:30 - 06:00	1.50	FISH	5	BREAK FISHING TOOLS ON BREAKS ON WAY OUT - NO FISH - RECHECK AND SET TOOLS FOR TRIP BACK IN - GRAPPLE NOT SHOWING WEAR AS TO CATCHING AND RELEASING THE FISH - AFETR TALKING ABOUT THE SITUATION WE ARE GOING BACK IN THE SAME - LOOKS LIKE OVER PULL IS FROM WASHOVER PIPE AS WE HAD A MUD RING ON TOP OF WASHPIPE NECK - WASH PIPE IS 7 5/8 WITH THE CUT RIGHT AT 7 7/8 - WE WILL GO BACK DOWN AND START CIRCULATING HARD WITH SLOW ROTATION 500' ABOVE FISH TO CLEAN UP TIGHT SPOTS - THEN PROCEED BACK OVER ROTOR TO FISH
3/3/2008	06:00 - 07:00	1.00	TRP	1	RE-TORQUE FISHING TOOLS
	07:00 - 11:00	4.00	TRP	2	TRIP TO SHOE
	11:00 - 11:30	0.50	EOP	1	INSTALL RT. HEAD
	11:30 - 12:30	1.00	RIG	6	CUT 120' OF DRILL LINE - CIRCULATE BOTTOMS UP WHILE CUTTING LINE
	12:30 - 13:30	1.00	RIG	1	SERVICE RIG AND TOP DRIVE
	13:30 - 16:00	2.50	TRP	2	TRIP TO 11158 WHICH IS 8 STANDS FROM BOTTOM WHICH IS THE FIRST PLACE WE SEEN HOLE TAKE WT.
	16:00 - 18:00	2.00	REAM	1	WASH AND REAM HOLE FROM 11158 TO 11608
	18:00 - 22:30	4.50	REAM	1	FINISH WASH AND REAM FROM 11608 TO 11890
	22:30 - 00:30	2.00	FISH	2	WORK OVER AND DOWN ON FISH - USED BUMPER SUB TO GET ON FISH OR WHAT EVER IS IN OUR WAY
	00:30 - 02:30	2.00	FISH	3	JAR AND WORK STUCK PIPE AT 11826 - CAME OFF BOTTOM 75K OVER WITH NO CIRCULATION - PLUGGED SOMEWHERE - JARRED ENOUGH TO FINALLY GET CIRCULATION AND WORK FREE
3/4/2008	02:30 - 03:30	1.00	TRP	2	TRIP TO 11239 - PIPE STAYED FULL SO HOPEFULLY WE HAVE FISH
	03:30 - 04:30	1.00	CIRC	1	CIRCULATE AND CONDITION WHILE MIXING AND PUMPING TRIP SLUG - BLOW KELLY DOWN
	04:30 - 06:00	1.50	TRP	2	TRIP OUT OF HOLE
	06:00 - 08:00	2.00	TRP	14	TRIP OUT HOPEFULLY WITH FISH
	08:00 - 08:30	0.50	EOP	1	PULL RT. HEAD
	08:30 - 11:00	2.50	TRP	2	FINISH TRIP OUT - NO FISH
	11:00 - 11:30	0.50	WOT	2	WAIT ON ORDERS WHILE CHECKING MARKS ON TOOLS
	11:30 - 13:30	2.00	FISH	5	BREAK AND LD FISHING TOOLS
	13:30 - 14:30	1.00	TRP	1	PICK UP BIT - BIT SUB - NON-MAG
	14:30 - 18:00	3.50	TRP	2	TRIP TO SHOE
	18:00 - 18:30	0.50	EOP	1	INSTALL RT. HEAD
	18:30 - 19:30	1.00	CIRC	1	CIRCULATE BOTTOMS UP TO GET RID OF TRIP SLUG
	19:30 - 01:00	5.50	TRP	2	FINISH TRIP TO BOTTOM - ONE TIGHT SPOT AT 10111 -

CONFIDENTIAL



## Operations Summary Report

Well Name: TU 3-35-7-21ST2

Location: 35- 7-S 21-E 26

Rig Name: UNIT

Spud Date: 12/5/2007

Rig Release: 4/26/2008

Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
3/4/2008	01:00 - 02:00	1.00	REAM	1	SAFETY WASH AND REAM LAST 180' TO BOTTOM - TAGGED POSSIBLE FISH AT 11797, PUSHED FOR 5' THEN CAME FREE AND TAGGED AGAIN AT 11867 WHICH DOES PUT IT BACK ON BOTTOM
	02:00 - 05:30	3.50	CIRC	1	CIRCULATE AND CONDITION WHILE PICKING UP 44 JOINTS OF DRILL PIPE FOR CEMENT JOB - PRE TREAT MUD SYSTEM WITH CITRIC ACID AND CARBONATE FOR CEMENT - PIPE SCREENS FILLING UP WITH RUBBER, I AM SURE COMING FROM STATOR RUBBER, SCREENS HAVE BEEN BYPASSED FOR 3 DAYS - WHEN WE GET BACK ON BOTTOM WE WILL HAVE TO SHACK SYSTEM COMPLETELY CLEAN FOR DIAMOND BIT AND DIRECTIONAL TOOLS
3/5/2008	05:30 - 06:00	0.50	TRP	2	TRIP OUT FOR SETTING CEMENT PLUG
	06:00 - 08:30	2.50	TRP	2	TRIP OUT CLEAN OUT BIT
	08:30 - 09:00	0.50	EOP	1	PULL RT. HEAD
	09:00 - 12:00	3.00	TRP	1	FINISH TRIP OUT
	12:00 - 13:00	1.00	TRP	1	LAY DOWN BIT - BIT SUB AND NON-MAG
	13:00 - 14:00	1.00	RIG	1	SERVICE RIG AND TOP DRIVE
	14:00 - 17:00	3.00	TRP	2	TRIP DRILL PIPE IN TO HOLE FOR PUMPING CEMENT
	17:00 - 17:30	0.50	EOP	1	INSTALL RT. HEAD
	17:30 - 18:00	0.50	TRP	2	FINISH TRIPPING DRILL PIPE IN TO HOLE -
	18:00 - 19:00	1.00	TRP	3	PICK UP 700' OF DRILL PIPE TO TOP OF FISH
3/6/2008	19:00 - 22:30	3.50	CIRC	1	CIRCULATE AND CONDITION MUD FOR PUMPING CEMENT PLUG - HALLIBURTON SHOWED UP ON TIME
	22:30 - 23:30	1.00	CMT	1	RIG UP CEMENTERS AND HOLD SAFETY MEETING
	23:30 - 01:00	1.50	CMT	4	PUMP CEMENT PLUG - TURNED PUMPS OFF 4 BBLs EARLY DUE TO PRESSURE INCREASE - HELD PRESSURE WITH CHARGE PUMP
	01:00 - 01:30	0.50	TRP	2	VERY SLOWLY TRIP 8 STANDS OUT - KELLY UP ON 9TH STAND AND PULL TO TOP WHICH PUTS BOTTOM OF PIPE ON TOP OF SPACER
	01:30 - 03:00	1.50	CIRC	1	CIRCULATE BOTTOMS UP AT 80 STROKES PM = 8 BBLs PER MINUTE
	03:00 - 06:00	3.00	TRP	2	TRIP OUT
	06:00 - 08:30	2.50	TRP	2	FINISH TRIP OUT
	08:30 - 09:30	1.00	TRP	1	LD DOUBLE DRILL PIPE - LD CEMENT MULE SHOE
	09:30 - 11:30	2.00	DRL	3	PICK UP DIRECTIONAL TOOLS - ADJUST MOTOR TO 1.83 - .3 RATIO - ENTER IN PASON
	11:30 - 12:00	0.50	DRL	2	SURFACE TEST MUD MOTOR
	12:00 - 12:30	0.50	OTH		CLEAN AND ORGANIZE FLOOR FOR TRIP IN
	12:30 - 18:00	5.50	TRP	2	TRIP BHA IN TO HOLE AND FILLING TWICE - FILL PIPE EVERY 2 ROWS AND INSTALL RT. HEAD AT SHOE
	18:00 - 19:30	1.50	TRP	2	FINISH TRIP TO BOTTOM
	19:30 - 20:30	1.00	DRL	5	RT. AND SLIDE IN CEMENT FROM 11366 TO 11410
3/7/2008	20:30 - 22:30	2.00	DRL	2	ORIENT TOOLS - CHECK TOOLS - 11410 TO 11413 - SLIDE FROM 11413 TO 11416, AVERAGE = 7' ROP - JUST A HARE TO SOFT SO WE ARE GOING TO TIME DRILLING
	22:30 - 06:00	7.50	DRL	2	TIME DRILL FROM 11416 TO 11423 - INCREASING RPM FROM 122 TO 142 AY 0600 - 10% SHALE - 90% CEMENT
	06:00 - 14:30	8.50	DRL	2	- TIME DRILL FROM 11423 TO 11438
	14:30 - 15:00	0.50	CIRC	1	CIRCULATE SAMPLE UP AND PUMP TRIP SLUG
	15:00 - 18:00	3.00	TRP	10	TRIP OUT OF HOLE FOR BIT CHANGE AND MUD MOTOR WITH A 1.5 BEND
	18:00 - 19:00	1.00	TRP	2	TRIP OUT
	19:00 - 19:30	0.50	BOP	1	PULL RT. HEAD
	19:30 - 21:30	2.00	TRP	2	FINISH TRIP OUT
	21:30 - 22:30	1.00	TRP	1	LAY DOWN MUD MOTOR AND BIT - PICK UP SAME
	22:30 - 23:30	1.00	DRL	3	LD MWD TOOLS - PICK UP SAME -
	23:30 - 00:30	1.00	RIG	1	SERVICE RIG AND TOP DRIVE

CONFIDENTIAL

## Operations Summary Report

Well Name: TU 3-35-7-21ST2

Location: 35- 7-S 21-E 26

Rig Name: UNIT

Spud Date: 12/5/2007

Rig Release: 4/26/2008

Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
3/7/2008	00:30 - 01:30	1.00	DRL	3	TEST MWD ALONG WITH SURFACE TEST MOTOR - ( PICK UP JOINT OF DP AND CROSS OVER AND LD SAME
	01:30 - 05:00	3.50	TRP	2	TRIP BHA AND BIT TO SHOE FOR CIRC. BOTTOMS UP AND CUTTING OF DRILL LINE
	05:00 - 05:30	0.50	EOP	1	INSTALL RT. HEAD
	05:30 - 06:00	0.50	RIG	6	CUT DRILL LINE WHILE CIRCULATING BOTTOMS UP - ALSO GOT AHOLD OF BLM AND GOT VERBAL OK ON EXTENTION FOR BOP TEST AS WE ARE DUE THIS COMING MONDAY ( CLIFF JOHNSON )
3/8/2008	06:00 - 06:30	0.50	RIG	6	FINISH UP ON CUTTING DRILL LINE - STARTED CIRCULATING BOTTOMS UP FROM SHOE
	06:30 - 07:00	0.50	RIG	1	SERVICE RIG AND TOP DRIVE - FINISH CIRCULATING BOTTOMS UP FROM SHOE
	07:00 - 09:30	2.50	TRP	2	FINISH TRIP IN EXCEPT LAST 4 STANDS
	09:30 - 11:30	2.00	REAM	1	WASH AND REAM LAST FOUR STANDS DOWN TIGHT SPOT FROM 11122 TO 11225
	11:30 - 13:00	1.50	DRL	3	ORIENT TOOLS IN TO SIDE TRACK - TOOL WANTING TO FLIP
	13:00 - 15:00	2.00	DRL	2	SLIDE FROM 11438 TO 11448
	15:00 - 16:00	1.00	CIRC	5	CIRCULATE SAMPLES UP
	16:00 - 18:00	2.00	DRL	2	SLIDE FROM 11448 TO 11558
	18:00 - 18:30	0.50	CIRC	5	CIRCULATE UP SAMPLE - 70%SS -30% SHALE AND SILTSTONE - NO CEMENT
	18:30 - 20:30	2.00	DRL	1	DRILL FROM 11458 TO 11468
	20:30 - 21:00	0.50	SUR	1	SURVEY - 11432 - 1.10 - 183.35
	21:00 - 22:30	1.50	DRL	1	DRILL FROM 11468 TO 11478
	22:30 - 23:00	0.50	SUR	1	SURVEY - 11442 - .75 - 193.10
	23:00 - 01:00	2.00	DRL	2	SLIDE FROM 11478 TO 11488
	01:00 - 04:00	3.00	DRL	1	DRILL FROM 11488 TO 11508
	04:00 - 04:30	0.50	SUR	1	SURVEY - 11472 - .35 - 316.06 - WITH THIS SURVEY WE HAVE A 1.1' DEPARTURE FROM OLD HOLE
	04:30 - 05:30	1.00	DRL	2	SLIDE FROM 11508 TO 11518
	05:30 - 06:00	0.50	DRL	1	DRILL FROM 11518 TO 11520
3/9/2008	06:00 - 08:30	2.50	DRL	1	DRILL FROM 11520 TO 11538
	08:30 - 09:00	0.50	SUR	1	SURVEY - 11502 - 1.14 - 355.35
	09:00 - 12:00	3.00	DRL	2	SLIDE FROM 11538 TO 11549
	12:00 - 14:00	2.00	DRL	1	DRILL FROM 11549 TO 11568
	14:00 - 14:30	0.50	SUR	1	SURVEY - 11532 - 2.15 - 356.93
	14:30 - 15:00	0.50	RIG	1	SERVICE RIG
	15:00 - 18:00	3.00	DRL	1	DRILL FROM 11568 TO 11596
	18:00 - 18:30	0.50	SUR	1	SURVEY - 11562 - 3.03 - 359.74
	18:30 - 06:00	11.50	DRL	1	DRILL FROM 11596 TO 11673 - SURVEYS = 11596 - 3.25 - 359.13, - 11628 - 3.25 - 359.74 - AT 11673 WE WILL DO A 10' SLIDE TO BRING BACK A HAIR IN CASE BITS GOES — UP - AT 11664 WE ARE 15.6' AWAY FROM OLD HOLE
3/10/2008	06:00 - 09:00	3.00	DRL	2	SLIDE FROM 11673 TO 11683
	09:00 - 10:30	1.50	DRL	1	DRILL FROM 11683 TO 11696
	10:30 - 11:30	1.00	RIG	1	SERVICE RIG AND TOP DRIVE
	11:30 - 12:00	0.50	SUR	1	SURVEY = 11660 - 3.08 - 358.50
	12:00 - 16:30	4.50	DRL	1	DRILL FROM 11696 TO 11729
	16:30 - 17:00	0.50	SUR	1	SURVEY = 11693 - 2.55 - 358.60
	17:00 - 18:00	1.00	CIRC	1	CIRCULATE HOLE CLEAN WITH SWEEP
	18:00 - 18:30	0.50	CIRC	1	FINISH CIRCULATING BOTTOMS UP
	18:30 - 19:30	1.00	REAM	1	SAFETY WASH AND REAM 8 STANDS OUT OF HOLE - SEEN VERY LITTLE HOLE DRAG
	19:30 - 20:00	0.50	CIRC	1	PUMP TRIP SLUG AND BLOW DOWN KELLY
	20:00 - 21:00	1.00	TRP	2	TRIP OUT

CONFIDENTIAL

## Operations Summary Report

Well Name: TU 3-35-7-21ST2

Location: 35- 7-S 21-E 26

Rig Name: UNIT

Spud Date: 12/5/2007

Rig Release: 4/26/2008

Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
3/10/2008	21:00 - 21:30	0.50	EOP	1	PULL RT. HEAD
	21:30 - 22:00	0.50	CIRC	1	RE FILL TRIP TANK
	22:00 - 02:30	4.50	TRP	2	FINISH TRP OUT OF HOLE - 23.8 BBLs EXTRA ON TRIP OUT
	02:30 - 04:00	1.50	TRP	1	DRAIN AND LD ALL DIRECTIONAL TOOLS
	04:00 - 04:30	0.50	OTH		CLEAN FLOOR FOR TRIP IN TO HOILE
	04:30 - 05:00	0.50	TRP	1	PICK UP NEW MUD MOTOR AND BIT AND TORQUE SAME
	05:00 - 05:30	0.50	CIRC	1	PICK UP JOINT OF DRILL PIPE AND XO - SURFACE TEST MM - OK
3/11/2008	05:30 - 06:00	0.50	TRP	2	START TRIPPING BHA IN TO HOLE
	06:00 - 10:00	4.00	TRP	2	TRIP IN TO HOLE FILLING 2 ROWS
	10:00 - 11:00	1.00	CIRC	1	INSTALL RT. WHILE CIRCULATING BOTTOMS UP TO GET RID OF TRIP SLUG
	11:00 - 13:00	2.00	TRP	2	TRIP TO 10358 - HIT BRIDGE
	13:00 - 17:30	4.50	REAM	1	WASH AND REAM FROM 10358 TO 11729 - 8' OF FILL
	17:30 - 18:00	0.50	DRL	1	DRILL FROM 11729 TO 11750
	18:00 - 06:00	12.00	DRL	1	DRILL FROM 11750 TO 11890 - AFTER GETTING TO BOTTOM FINISH DRILLING KELLY DOWN, REAMED HOLE TWO TIMES, PULL DRILL PIPE SCREEN TO PUT IN KELLY JOINT AND GOT BIT STUCK, COULD RT BUT STRING HELD PRESSURE, WORKED OVER PULL AND RT TORQUE TO GET FREE, RETURNS NOT SHOWING ANY HEAVY SIGNS OF SLOUGHING, WE DID HIT SOME BRIDES AND TIGHT SPOTS ON WAY INTO HOLE - WE ARE NOW HOLDING MUD WT. AT 10.6 - MILL STARTED IN TO KICK OFF HOLE AT 11862 AND SO FAR DOING FINE
3/12/2008	06:00 - 15:00	9.00	DRL	1	DRILL FROM 11890 TO 11963
	15:00 - 16:00	1.00	RIG	1	SERVICE RIG AND TOP DRIVE
	16:00 - 18:00	2.00	DRL	1	DRILL FROM 11963-11976 - DUMP SAND TRAP - PICKED UP EXTRA GAS FROM DEPTH 11918 TO 11925 - LOSING 6 BBLs PER HOUR - PUMPING 5 BBL SWEEPS EVERY HOUR DOING OK
	18:00 - 21:30	3.50	DRL	1	DRILL FROM 11976 TO 12001 -
	21:30 - 23:00	1.50	CIRC	1	RESTART BIT - WORK HOLE - WORK BIT AND MILL TRYING TO GET TO DRILL - WORKED BIT WT. TO 35K - PICKED UP DIFFRENTIAL BUT WOULD NOT DRILL OFF
	23:00 - 01:00	2.00	TRP	2	WASH AND BACKREAM 11 STANDS OUT - HOLE DID WELL WITH NO TIGHT SPOTS VISIBLE WITH PUMPS IN
	01:00 - 02:00	1.00	CIRC	1	CIRCULATE BOTTOMS UP GETTING RID OF GAS AND BUILDING TRIP SLUG
3/13/2008	02:00 - 02:30	0.50	CIRC	1	PUMP PILL AND BLOW DOWN KELLY AND PUMP LINES
	02:30 - 06:00	3.50	TRP	10	TRIP OIT OF HOLE FOR BIT
	06:00 - 06:30	0.50	EOP	1	PULL RT HEAD
	06:30 - 09:00	2.50	TRP	10	FINISH TRIP OUT
	09:00 - 10:00	1.00	TRP	1	BIT IS DBR - REJET BIT - CLEAN FLOAT ON MUD MOTOR WHILE CLEANING FLOOR FOR TRIP IN
	10:00 - 14:00	4.00	TRP	2	TRIP BHA AND DRILL PIPE TO SHOE - FILLING EVERY 2 ROWS
	14:00 - 14:30	0.50	EOP	1	INSTALL RT. HEAD
	14:30 - 15:30	1.00	CIRC	1	FILL PIPE AND CIRCULATE BOTTOMS UP FROM SHOE -
	15:30 - 16:30	1.00	RIG	6	CUT DRILL LINE
	16:30 - 17:30	1.00	RIG	1	SERVICE RIG AND TOP DRIVE - ALSO CHANGED OIL IN TOP DRIVE MOTOR
	17:30 - 18:00	0.50	TRP	2	TRIP IN TO HOLE
	18:00 - 20:00	2.00	TRP	2	TRIP IN TO HOLE TO 11000' HIT TIGHT SPOT - COULD NOT WORK THRU DRY
	20:00 - 23:00	3.00	REAM	1	WASH AND REAM TO BOTTOM - TRIED TO GO TO BOTTOM A NUMBER OF TIMES BUT STACKS OUT - PUT PUMPS ON LINE AND WASHES RIGHT THRU - VERY SELDOM SEEING MORE THAN ON 5K BIT WT. WHEN REAMING DOWN
	23:00 - 06:00	7.00	DRL	1	DRILL FROM 12001 TO 12092 - HOLE SEEPING 5-7 BBLs PER HOUR - DOING WELL WITH SWEEPS EVERY HOUR
3/14/2008	06:00 - 13:00	7.00	DRL	1	DRILL FROM 12092 TO 12150 - BIT DIEING WITH NO GOOD DRILLING

## Operations Summary Report

Well Name: TU 3-35-7-21ST2  
 Location: 35- 7-S 21-E 26  
 Rig Name: UNIT

Spud Date: 12/5/2007  
 Rig Release: 4/26/2008  
 Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
3/14/2008	06:00 - 13:00	7.00	DRL	1	AVERAGE
	13:00 - 13:30	0.50	CIRC	1	CIRCULATE WHILE BUILDING PILL
	13:30 - 14:00	0.50	SUR	1	DROP SURVEY - SURVEY DEPTH 12065 -
	14:00 - 16:30	2.50	REAM	1	CLEAN HOLE UP WHILE BACKREAMING 12 STANDS OUT
	16:30 - 18:00	1.50	TRP	10	PUMP TRIP SLUG - BLOW DOWN KELLY AND TRIP OUT
	18:00 - 19:00	1.00	TRP	10	TRIP OUT TO SHOE
	19:00 - 19:30	0.50	EOP	1	PULL RT. HEAD
	19:30 - 21:00	1.50	TRP	10	TRIP OUT TO 2100'
	21:00 - 22:00	1.00	RIG	1	SERVICE TOP DRIVE - XO LINK TILT CYLINDER
	22:00 - 23:30	1.50	TRP	10	FINISH TRIP OUT
	23:30 - 00:30	1.00	TRP	1	DRAIN AND LD MM AND BIT - PICK UP SAME - FUNCTION ALL BOP EQUIPMENT AS PER BLM REQUIREMENTS
	00:30 - 01:00	0.50	CIRC	1	SURFACE TEST MUD MOTOR
	01:00 - 06:00	5.00	TRP	2	TRIP IN TO HOLE WITH BIT # 23 - BLM ( CLIFF JOHNSON SHOWED UP TODAY ) GAS US VERBAL EXTENSION TO TD ON BOP TEST - WE ARE 4 DAYS OVER
3/15/2008	06:00 - 08:30	2.50	TRP	2	TRIP TO ONE STAND FROM BOTTOM - HAD TO WASH THRU AT 10787 AND AT 11025 AND THEN TO BOTTOM
	08:30 - 09:30	1.00	REAM	1	SAFETY WASH AND REAM ONE STAND TO BOTTOM - NO FILL
	09:30 - 18:00	8.50	DRL	1	DRILL FROM 12150 TO 12270
	18:00 - 03:30	9.50	DRL	1	DRILL FROM 12270 TO 12406
	03:30 - 04:00	0.50	CIRC	2	LOST CIRCULATION - DOWN TO HALF FLOW - WE ALREADY HAVE ONE SHAKER BYPASSED WITH 3% LCM IN SYSTEM - LOST 92 BBLs - PUMP TO 40 BBLs SWEEPS AND EASE BACK TO BOTTOM - FLOW COMING BACK WITH FIRST SWEEP - GOING DIGGING
3/16/2008	04:00 - 06:00	2.00	DRL	1	DRILL AHEAD WITH LIGHT BIT WT. AND GALLONS DOWN TO 360 GALLONS - DRILL FROM 11406 TO MUD LOGGER HAS NOT SEEN ANY INDICATION THAT WE HAVE VISITED THE CASTLE GATE ZONE, NO SAND AND WE ARE 200' PAST PREDICTION - WILL BE CHATTING WITH GEO. THIS AM
	06:00 - 12:30	6.50	DRL	1	DRILL FROM 12415 TO 12499
	12:30 - 13:30	1.00	RIG	1	SERVICE RIG AND TOP DRIVE
	13:30 - 18:00	4.50	DRL	1	DRILL FROM 12499 TO 12578 - STILL PUMPING SWEEPS - STILL LOSING 7 BBLs PER HOUR - WE NOW ARE DRILLING BACK WITH FULL STROKES
	18:00 - 04:00	10.00	DRL	1	DRILL FROM 12578 TO 12687 - TORQUE COMING UP - MIXING UP COCTAIL IN PILL TANK TO SEE IF I RELIEVE IT - BLACKHAWK MARKER CAME IN AT 12640'
	04:00 - 04:30	0.50	REAM	1	WASH AND BACK REAM HOLE TO SEE IF IT WOULD RELEASE ANY TORQUE - LOST 100PSI IN TORQUE
3/17/2008	04:30 - 06:00	1.50	DRL	1	DRILL FROM 12687 TO 12393 - BY 0530 WE WILL BE PUMPING SOME SLICKUM COCTAIL DOWN HOLE TO SEE IF IT HELPS - BLACK HAWK MARKER IN AT 12640 SO POSSIBLE GAS SAND AROUND 12740 - LOSING ANYWHERE FROM 6-9 BBLs PER HOUR - SWEEPS HELPING - NEW INFORMATION NOW IN FROM MUD LOGGER. I GUESS HE RECIECEV A EMAIL AT 1030 WHEN HE WAS IN BED AND DID NOT SEE UNTIL 0430 THIS AM. RUSS AND BOB L. HAVE LOWERED THE ZONES AND ARE SAYING SEGO NOW CAME IN AT 12540 AND CASTLE GATE IN AT 12665 WHICH WOULD HELP ME UNDERSTAND WHY PR IS DROPPING ALONG WITH DIFFERANTIAL. WILL PERSUE FARTHER - THEY ARE MAKING EVERYTHING DEEPER BY 385'.
	06:00 - 18:00	12.00	DRL	1	DRILL FROM 12693 TO 12786 - PUMPING SWEEPS EVERY HOUR
	18:00 - 19:00	1.00	RIG	1	SERVICE RIG AND TOP DRIVE
	19:00 - 01:00	6.00	DRL	1	DRILL FROM 12786 TO 12812 - NOTHING WORKING - BIT DEAD
	01:00 - 02:00	1.00	TRP	10	TRIP 10 STANDS WET - 2 SMALL TIGHT SPOT BUT WORKED RIGHT ON THRU
	02:00 - 02:30	0.50	CIRC	1	PUMP PILL AND BLOW DOWN KELLY TO PUMPS
	02:30 - 06:00	3.50	TRP	10	TRIP OUT IN LOW LOW SO DRILLER CAN KEEP UP - VERY WINDY

## Operations Summary Report

Well Name: TU 3-35-7-21ST2  
 Location: 35- 7-S 21-E 26  
 Rig Name: UNIT

Spud Date: 12/5/2007  
 Rig Release: 4/26/2008  
 Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
3/18/2008	06:00 - 06:30	0.50	TRP	10	TRIP OUT TO SHOE
	06:30 - 07:00	0.50	EOP	1	PULL RT. HEAD
	07:00 - 10:00	3.00	TRP	10	FINISH TRIP OUT - CLEAN SAND TRAP - SHAKER TANK AND #1 PVT TANK
	10:00 - 12:00	2.00	TRP	1	DRAIN AND LD MM AND BIT - PICK UP SAME - CLEAN FLOOR AND SURFACE
					TEST MOTOR
	12:00 - 12:30	0.50	TRP	2	TRIP IN TO HOLE
	12:30 - 13:30	1.00	RIG	1	SERVICE RIG AND TOP DRIVE - ADJUST BRAKES - REPAIR AIR HOSE ON SPINNERS
	13:30 - 14:00	0.50	BOP	1	CIRCULATE TRIP SLUG OUTINSTALL RT. HEAD
	14:00 - 15:00	1.00	CIRC	1	CIRCULATE TRIP SLUG OUT
	15:00 - 18:00	3.00	TRP	2	TRIP INTO HOLE FILLING EVERY 3 ROWS
	18:00 - 19:00	1.00	TRP	2	TRIP IN TO HOLE - SMOOTH IN
	19:00 - 20:00	1.00	REAM	1	SAFETY WASH AND REAM 180' TO BOTTOM - LAST 4' HARD
	20:00 - 06:00	10.00	DRL	1	DRILL FROM 12812 TO 12900 - WELL SEEPING 3 TO 4 BBLS PER HOUR - STILL IN CASTLEGATE GOING DIRECTLY TO TD - SAND TRAP, SHAKER TANK AND #1 PVT CLEANED - #1 SHAKER BYPASSED WITH #2 SCREENED UP -
					RUNNING ALL SOLIDS CONTROL EQUIPMENT
3/19/2008	06:00 - 14:30	8.50	DRL	1	DRILL FROM 12900 TO 12938 - BIT STOPPED
	14:30 - 15:30	1.00	CIRC	1	CIRCULATE BOTTOM UP
	15:30 - 16:00	0.50	CIRC	1	PUMP TRIP SLUG AND BLOW DOWN KELLY
	16:00 - 18:00	2.00	TRP	10	TRIP OUT OF HOLE WITH BIT # 24
	18:00 - 19:00	1.00	TRP	10	TRIP TO SHOE
	19:00 - 19:30	0.50	BOP	1	PULL RT HEAD
	19:30 - 22:30	3.00	TRP	10	FINISH TRIP OUT
	22:30 - 23:30	1.00	TRP	1	LAY DOWN BIT, MM AND PICK UP SAME
	23:30 - 00:00	0.50	CIRC	1	SURFACE TEST MOTOR
	00:00 - 03:30	3.50	TRP	2	TRIP TO SHOE
	03:30 - 04:00	0.50	BOP	1	INSTALL RT. HEAD
	04:00 - 05:00	1.00	RIG	6	CUT DRILL LINE
	05:00 - 05:30	0.50	CIRC	1	CIRCULATE TRIP SLUG TO SURFACE
	05:30 - 06:00	0.50	TRP	2	TRIP IN TO HOLE WITH IMPREG
3/20/2008	06:00 - 09:00	3.00	TRP	10	TRIP IN HOLE WITH IMPREG
	09:00 - 09:30	0.50	REAM	1	WASH 50' TO BOTTOM, NO FILL
	09:30 - 18:30	9.00	DRL	1	DRILL F/ 12938'-12976' , WOB- 8-16K, RPM- 495 COMBINED, GPM- 450, MW- 10.75, VIS- 44, SEEPING 1-2 BBLS/HR
	18:30 - 19:30	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION ANNULAR & TOP DRIVE
	19:30 - 06:00	10.50	DRL	1	DRILL F/ 12976'-13032', WOB- 15-20K, RPM- 495 COMBINED, GPM- 450, MW- 10.8, VIS- 44, SEEPING 2-3 BBLS/HR, PUMPING 20 BBL LCM SWEEPS AS NEEDED. LOST CIRC. @ 0550, PUMPED 60 BBLS FROM PREMIX WITH 15% LCM, BYPASSED SHAKERS, MIXING LCM IN ACTIVE PITS TO RAISE LCM TO 15%.
3/21/2008	06:00 - 09:30	3.50	CIRC	2	LOST CIRCULATION @ 13,030', BYPASS SHAKERS, MIX LCM & BUILD VOLUME, RAISE LCM TO 10% IN ACTIVE PITS, LOST 440 BBLS
	09:30 - 12:00	2.50	DRL	1	DRILL F/ 13,030'-13,041', WOB- 18-20K, RPM- 480 COMBINED, GPM- 430, MW- 10.8, VIS- 43, LCM- 9%, SEEPING 2-3 BBLS/HR, BG GAS- 225u
	12:00 - 13:00	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION TOP PIPE RAMS & COM
	13:00 - 06:00	17.00	DRL	1	DRILL F/ 13,041'-13,118', WOB- 16-22K, RPM- 475-495 COMBINED, GPM- 428-450, MW- 10.9, VIS- 42, LCM- 9%, BG GAS- 225u, CONN GAS- 1760u, SEEPING 2-3 BBLS/HR
3/22/2008	06:00 - 15:00	9.00	DRL	1	DRILL F/ 13,118'-13,168', WOB- 16-22K, RPM- 475 COMBINED, GPM- 428, MW- 10.9, VIS- 43, LCM- 9%, SEEPING 2-3 BBLS/HR, BG GAS- 240u
	15:00 - 16:00	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION LOWER PIPE RAMS & COM
	16:00 - 06:00	14.00	DRL	1	DRILL F/ 13,168'- 13,245', WOB- 16-22K, RPM- 475 COMBINED, GPM- 428, MW-

## Operations Summary Report

Well Name: TU 3-35-7-21ST2

Location: 35- 7-S 21-E 26

Rig Name: UNIT

Spud Date: 12/5/2007

Rig Release: 4/26/2008

Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
3/22/2008	16:00 - 06:00	14.00	DRL	1	11, VIS- 45, LCM- 8%, SEEPING 2-3 BBLS/HR, BG GAS- 270u, CONN GAS- 3250u
3/23/2008	06:00 - 13:30	7.50	DRL	1	DRILL F/ 13,245'-13,295', WOB- 18-20K, RPM- 475 COMBINED, GPM- 428, MW- 11, VIS- 44, LCM- 9%, SEEPING 2-3 BBLS/HR, BG GAS- 250u, CONN GAS- 2150u
	13:30 - 14:30	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION SUPER CHOKE & COM
	14:30 - 23:00	8.50	DRL	1	DRILL F/ 13,295'-13,350', DRLG WITH SAME PARAMETERS, MW- 11, VIS- 44, LCM- 9%, SEEPING 2-3 BBLS/HR, BG GAS- 320u
	23:00 - 00:30	1.50	CIRC	1	CIRCULATE BOTTOMS UP
	00:30 - 03:00	2.50	TRP	14	SHORT TRIP 21 STDS F/ LOGS
	03:00 - 05:00	2.00	CIRC	1	CIRCULATE & CONDITION MUD F/ LOGS
	05:00 - 05:30	0.50	SUR	1	DROP SURVEY & CHECK F/ FLOW
	05:30 - 06:00	0.50	TRP	2	PUMP TRIP SLUG & TRIP OUT F/ LOGS
3/24/2008	06:00 - 10:00	4.00	TRP	2	TRIP OUT F/ LOGS TO 6510'
	10:00 - 10:30	0.50	TRP	2	PULL ROT. HEAD RUBBER
	10:30 - 14:00	3.50	TRP	2	FINISH TRIPPING OUT F/ LOGS (HOLE FILL 43 BBLS OVER CALCULATED)
	14:00 - 14:30	0.50	TRP	1	FUNCTION BLIND RAMS, BREAK BIT & LAY DOWN MUD MOTOR
	14:30 - 15:00	0.50	LOG	1	HOLD PRE JOB SAFETY MEETING WITH HALLIBURTON LOGGERS
	15:00 - 15:30	0.50	LOG	1	RIG UP LOGGERS
	15:30 - 22:00	6.50	LOG	1	RUN WIRELINE LOGS, TRIPLE COMBO & SONIC, LOGGERS DEPTH 13,350'
	22:00 - 23:00	1.00	LOG	1	LAY DOWN LOGGING TOOLS & RIG DOWN LOGGERS
	23:00 - 01:00	2.00	TRP	2	MAKE UP RR BIT & TRIP IN BHA THEN TRIP BACK OUT TO CHANGE BITS TO POSSIBLY DRILL DEEPER
	01:00 - 04:30	3.50	TRP	2	MAKE UP NEW BIT & TRIP IN, BREAK CIRC. AFTER DC'S THEN EVERY 2000'
	04:30 - 05:30	1.00	TRP	2	INSTALL ROT. HEAD & CIRC. F/ 20 MIN
	05:30 - 06:00	0.50	TRP	2	TRIP IN , BREAK CIRC. EVERY 2000'
3/25/2008	06:00 - 09:00	3.00	TRP	2	TRIP IN, BREAK CIRC. EVERY 2000'
	09:00 - 13:30	4.50	REAM	1	REAM F/ 12,980'-13,350', WOB- 3-5K, RPM- 65, GPM- 428, MW- 11, VIS- 48, LCM- 9%, BG GAS- 150u, TRIP GAS- 1700u WITH 12' FLARE
	13:30 - 19:00	5.50	DRL	1	DRILL F/ 13,350'-13,394', WOB- 5-8K, RPM- 70-90, GPM- 428, MW- 10.9, VIS- 44, LCM- 8%, BG GAS- 175u, CONN GAS- 1050u
	19:00 - 20:00	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION HCR & COM
	20:00 - 06:00	10.00	DRL	1	DRILL F/ 13,394'-13,442', WOB- 7-10K, RPM- 90, GPM- 428, MW- 10.9, VIS- 45, LCM- 8%, SEEPING 2-3 BBLS/HR, BG GAS- 210u, CONN GAS- 1000u (TOP OF KENNILWORTH @ 13,416')
3/26/2008	06:00 - 09:30	3.50	DRL	1	DRILL F/ 13,442'-13,458', WOB- 6-10K, RPM- 90, GPM- 428, MW- 10.9, VIS- 44, LCM- 8%, BG GAS- 175u, CONN GAS- 2150u, SEEPING 2-3 BBLS/HR
	09:30 - 10:30	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION ANNULAR & COM
	10:30 - 16:30	6.00	DRL	1	DRILL F/ 13,458'-13,490', DRLG WITH SAME PARAMETERS, MW & VIS
	16:30 - 18:30	2.00	CIRC	1	CIRC. & COND. MUD & MIX TRIP SLUG
	18:30 - 19:30	1.00	RIG	7	CIRC. & HOLD SAFETY MEETING WITH ROCKY MTN. LAY DOWN CREW & RIG UP LAY DOWN MACHINE
	19:30 - 02:00	6.50	TRP	3	PUMP TRIP SLUG & LAY DOWN DP
	02:00 - 02:30	0.50	TRP	3	PULL ROT. HEAD & FILL TRIP TANK
	02:30 - 06:00	3.50	TRP	3	LAY DOWN DP & HWDP
3/27/2008	06:00 - 08:00	2.00	TRP	1	LAY DOWN BHA
	08:00 - 09:00	1.00	TRP	1	PULL WEAR BUSHING
	09:00 - 11:30	2.50	CSG	1	HOLD SAFETY MEETING & RIG UP ROCKY MTN. CSG CREW
	11:30 - 02:00	14.50	CSG	2	RUN 7" CSG, FILL & BREAK CIRC. EVERY 1200'
	02:00 - 03:30	1.50	CIRC	1	LAND CSG, CIRC & RIG DOWN CSG CREW
	03:30 - 06:00	2.50	CIRC	1	CIRC & COND. MUD F/ CEMENT JOB, GPM- 193, MW- 10.8, VIS- 54, LCM- 6%, HOLE SEEPING 10-12 BBLS/HR, PUMPING 20 BBL SWEEPS WITH 15% LCM EVERY 30 MIN. WILL LOWER VIS TO 42
3/28/2008	06:00 - 09:00	3.00	CIRC	1	CIRCULATE & CONDITION MUD, LOWER MUD WT TO 10.7 & VIS TO 44
	09:00 - 10:30	1.50	CSG	1	LAY DOWN LANDING JT., CSG ELEVATORS & BALES

CONFIDENTIAL

## Operations Summary Report

Well Name: TU 3-35-7-21ST2

Location: 35- 7-S 21-E 26

Rig Name: UNIT

Spud Date: 12/5/2007

Rig Release: 4/26/2008

Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
3/28/2008	10:30 - 13:30	3.00	EQT	1	LAND SUPPORT BUSHING, ENERGIZE LOCKPINS, PACKOFF LOWER SEAL TO 5M, UPPER SEAL TO 10M & VOID TO 5M. INSTALL CEMENT ISOLATION TOOL & ENERGIZE LOCKPINS. RIG UP HALLIBURTON LINES.
	13:30 - 14:00	0.50	CIRC	1	INSTALL CIRCULATING SWEDGE & BREAK CIRCULATION THRU 2" OUTLETS ON "B" SECTION
	14:00 - 15:00	1.00	CIRC	1	CIRCULATE BOTTOMS UP, HOLD SAFETY MEETING & RIG UP HALLIBURTON CEMENT HEAD, PRESSURE TEST LINES TO 6000#
	15:00 - 21:00	6.00	CMT	2	CEMENT CSG (NITRIFIED) 1ST LEAD CEMENT- 420 SX WITH FOAM DENSITY @ 9 PPG, 2ND LEAD CEMENT- 1650 SX WITH FOAM DENSITY @ 11 PPG, TAIL CEMENT- 185 SX @ 14.3 PPG, CAP CEMENT- 200 SX @ 14.6 PPG, RECOVERD 240 BBLs OF CEMENT @ SURFACE, PLUG DID NOT BUMP BUT FLOATS HELD
	21:00 - 22:00	1.00	CMT	1	RIG DOWN HALLIBURTON & LAY DOWN CEMENT ISOLATION TOOL & LANDING JT.
	22:00 - 06:00	8.00	LOC	7	EMPTY MUD TANKS USING VAC TRUCKS, CLEAN MUD TANKS, & INSTALL DP SCREEN MANIFOLD ON STANDPIPE.
3/29/2008	06:00 - 12:00	6.00	LOC	7	CLEAN MUD TANKS
	12:00 - 15:00	3.00	LOC	5	BUILD BERM ACROSS RESERVE PIT & PREP LOCATION & SET DRYER SHAKER, CATCH TANK & OBM CUTTINGS TANKS
	15:00 - 22:00	7.00	BOP	2	PRESSURE TEST BOP, 10M HIGH, 250# LOW, ANNULAR- 6500#, CSG- 2500#, FUNCTION TEST ACCUMULATOR
	22:00 - 03:00	5.00	CIRC	6	FILL MUD TANKS WITH OBM & LOWER MW TO 13.2 PPG, RACK & STRAP 4" DRILL STRING
3/30/2008	03:00 - 04:00	1.00	BOP	2	INSTALL WEAR BUSHING
	04:00 - 06:00	2.00	RIG	7	HOLD SAFETY MEETING WITH ROCKY MTN. PICK UP CREW & RIG UP
	06:00 - 06:30	0.50	RIG	7	HOLD SAFETY MEETING WITH ROCKY MTN. LAY DOWN CREW
	06:30 - 00:30	18.00	TRP	1	PICK UP 4 3/4" BHA & 4" DP, FILL PIPE EVERY 3000' (TAGGED CEMENT @ 13,375')
	00:30 - 03:00	2.50	DRL	4	DRILL CEMENT & FLOAT EQUIPMENT F/ 13,375'-13,475' & DISPLACE WATER MUD WITH OBM
	03:00 - 04:00	1.00	RIG	6	CUT DRLG LINE
3/31/2008	04:00 - 05:00	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE
	05:00 - 05:30	0.50	DRL	1	DRILL F/ 13,490'-13,500', WOB- 5K, RPM- 155 COMBINED, GPM- 211, MW- 13, VIS- 58
	05:30 - 06:00	0.50	EQT	2	CIRC. & FIT TO 16 PPG
	06:00 - 06:30	0.50	EQT	2	FIT TO 16 PPG EMW @ 13,500', FUNCTIONED TOP PIPE RAMS & HCR
	06:30 - 13:30	7.00	DRL	1	DRILL F/ 13,500'-13,611', WOB- 8-12K, RPM- 160 COMBINED, GPM- 212, MW- 12.9, VIS- 51, 150u, CONN GAS- 250u, NO LOSSES
	13:30 - 14:00	0.50	RIG	2	REPAIR POP OFF ON #2 PUMP
4/1/2008	14:00 - 16:00	2.00	DRL	1	DRILL F/ 13,611'-13,656' (FRACTURED F/ 13,645'-13,655') WOB- 5-12K RPM- 140-160 COMBINED, GPM- 192-212, MW- 12.9, VIS- 50
	16:00 - 17:00	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTIONED COM
	17:00 - 06:00	13.00	DRL	1	DRILL F/ 13,656'-13,882', WOB- 10-14K, RPM- 160 COMBINED, GPM- 214, MW- 12.8, VIS- 46, BG GAS- 180u, NO LOSSES
	06:00 - 08:00	2.00	DRL	1	DRILL F/ 13,882'-13,895', WOB- 10-14K, RPM- 160 COMBINED, GPM- 214, MW- 12.8, VIS- 45, BG GAS- 180u, NO LOSSES
	08:00 - 09:00	1.00	CIRC	1	CIRC. & MIX TRIP SLUG
	09:00 - 10:00	1.00	SUR	1	DROP SURVEY, CHECK F/ FLOW & PUMP TRIP SLUG
4/1/2008	10:00 - 10:30	0.50	TRP	10	PULL 5 STDs & PULL ROT. HEAD
	10:30 - 17:00	6.50	TRP	10	TRIP OUT F/ BIT #27 (HOLE FILL 23 BBLs OVER CALCULATED)
	17:00 - 18:00	1.00	TRP	1	BREAK BIT. RETRIEVE SURVEY TOOL & LAY DOWN MUD MOTOR
	18:00 - 19:00	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, CLEAN FLOOR F/ TRIP IN
	19:00 - 20:00	1.00	TRP	1	PICK UP & SURFACE TEST .26 HUNTING MUD MOTOR

## Operations Summary Report

Well Name: TU 3-35-7-21ST2  
 Location: 35- 7-S 21-E 26  
 Rig Name: UNIT

Spud Date: 12/5/2007  
 Rig Release: 4/26/2008  
 Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
4/1/2008	20:00 - 03:00	7.00	TRP	10	TRIP IN, FILL PIPE PIPE & BREAK CIRC. AFTER BHA THEN EVERY 3000'
	03:00 - 03:30	0.50	TRP	10	INSTALL ROT. HEAD RUBBER & BREAK CIRC.
	03:30 - 04:00	0.50	TRP	10	TRIP IN
	04:00 - 05:00	1.00	REAM	1	WASH 90' TO BOTTOM WITH 3' OF FILL
	05:00 - 06:00	1.00	DRL	1	DRILL F/ 13,895'-13,900', WOB- 5-8K, RPM- 110 COMBINED, GPM- 214, MW- 13, VIS- 53, BG GAS- 120u, TRIP GAS- 3400 THRU BUSTER, NO FLARE
4/2/2008	06:00 - 14:00	8.00	DRL	1	DRILL F/ 13,900'-13,982', WOB- 6-14K, RPM- 120 COMBINED, GPM- 235, MW- 13, VIS- 48, BG GAS- 200u, CONN GAS- 800u, NO LOSSES
	14:00 - 15:00	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION SUPER CHOKE & COM
	15:00 - 06:00	15.00	DRL	1	DRILL F/ 13,982'-14,215', WOB- 12-16K, RPM- 120 COMBINED, GPM- 235, MW- 12.9, VIS- 48, BG GAS- 215u, CONN GAS- 5000u, NO LOSSES
4/3/2008	06:00 - 11:00	5.00	DRL	1	DRILL F/ 14,215'-14,306', WOB- 12-16K, RPM- 120 COMBINED, GPM- 235, MW- 12.8, VIS- 48, BG GAS- 250u, CONN GAS- 1000u, NO LOSSES
	11:00 - 12:00	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION TOP PIPE RAMS & COM
	12:00 - 06:00	18.00	DRL	1	DRILL F/ 14,306'-14,662', WOB- 14-16K, RPM- 120 COMBINED, GPM- 235, MW- 12.8, VIS- 47, BG GAS- 220u, CONN GAS- 1300u, NO LOSSES
4/4/2008	06:00 - 11:00	5.00	DRL	1	DRILL F/ 14,662'-14,756', WOB- 12-16K, RPM- 120 COMBINED, GPM- 235, MW- 12.8, VIS- 48, BG GAS- 275u
	11:00 - 12:00	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION ANNULAR & COM
	12:00 - 06:00	18.00	DRL	1	DRILL F/ 14,756'-15,112', WOB- 12-16K, RPM- 120 COMBINED, GPM- 235, MW- 12.8, VIS- 47, BG GAS- 540u, CONN GAS- 6390u
4/5/2008	06:00 - 09:00	3.00	DRL	1	DRILL F/ 15,122'-15,178', WOB- 12-16K, RPM- 115 COMBINED, GPM- 214, MW- 12.8, VIS- 45, BG GAS- 75u, CONN GAS- 6340u, MINOR SEEPAGE
	09:00 - 13:30	4.50	CIRC	1	AT 15,175 ROP SLOWED TO 8'/HR DRILLED 3' THEN PICKED UP TO CIRC. & MIX TRIP SLUG. AT BOTTOMS UP GAS INCREASED TO 6750u WITH 15' FLARE, CIRCULATED TWO MORE BOTTOMS UP & INCREASED MW TO 13.2
	13:30 - 14:00	0.50	TRP	10	CHECK F/ FLOW - NO FLOW
	14:00 - 15:30	1.50	TRP	10	PUMP TRIP SLUG & TRIP OUT TO 13,030'
	15:30 - 16:00	0.50	TRP	10	PULL ROT. HEAD RUBBER & LAY DOWN 1 JT OF DP
	16:00 - 21:30	5.50	TRP	10	TRIP OUT, FUNCTION BLIND RAMS (HOLE FILL 25 BBLs OVER CALCULATED)
	21:30 - 22:00	0.50	TRP	1	BREAK BIT & LAY DOWN MUD MOTOR
	22:00 - 23:00	1.00	TRP	10	CLEAN FLOOR AFTER PULLING WET BHA
	23:00 - 00:00	1.00	TRP	1	PICK UP & SURFACE TEST MUD MOTOR
	00:00 - 05:00	5.00	TRP	10	TRIP IN TO 13,030', BREAK CIRC. AFTER BHA THEN EVERY 3000'
4/6/2008	05:00 - 05:30	0.50	TRP	10	INSTALL ROT. HEAD RUBBER
	05:30 - 06:00	0.50	RIG	1	BREAK CIRC. & LUBRICATE RIG
	06:00 - 08:30	2.50	RIG	1	CHANGE OIL IN TOP DRIVE, TOP DRIVE MOTOR & SWIVEL
	08:30 - 09:30	1.00	RIG	6	CUT DRLG LINE & RESET COM
	09:30 - 10:30	1.00	RIG	2	INSPECT TORQUE TUBE & RETIGHTEN BOLTS & TURNBUCKLES
	10:30 - 11:30	1.00	TRP	10	TRIP IN HOLE
	11:30 - 12:00	0.50	REAM	1	WASH DOWN 150' TO BOTTOM WITH 4' OF FILL.
	12:00 - 18:30	6.50	DRL	1	DRILL F/ 15,178'-15,294', WOB- 8-10K, RPM- 110, GPM- 235, MW- 13.2, VIS- 47, BG GAS- 330u, CONN GAS- 3940u, TRIP GAS- 5800u W/ 30' FLARE, NO LOSSES
	18:30 - 19:30	1.00	CIRC	1	AT 15,270' DRILLED FRACTURE, AT BOTTOMS TOOK A 12 BBL KICK, GAS INCREASED TO 5500u WITH A 25' FLARE, SHUT IN WELL & CIRCULATED OUT KICK THRU CHOKE WITH 50 PSI CSG PRESSURE.
	19:30 - 20:00	0.50	DRL	1	DRILL THRU BUSTER F/ 15,294'-15,311', DRLG WITH SAME PARAMETERS, MW & VIS, BG GAS- 5800u WITH 10' FLARE
4/7/2008	20:00 - 20:30	0.50	CIRC	1	CIRC OUT GAS & START RAISING MW
	20:30 - 06:00	9.50	DRL	1	DRILL THRU BUSTER F/ 15,311'-15,464', WOB- 8-10K, RPM- 110 COMBINED, GPM- 235, MW- 13.8, VIS- 47, BG GAS- 5500u W/ 10' FLARE, CONN GAS- 5710u W/ 30' FLARE, NO LOSSES
	06:00 - 14:00	8.00	DRL	1	DRILL THRU BUSTER F/ 15,464'-15,658', WOB- 8-12K, RPM- 110 COMBINED,



## Operations Summary Report

Well Name: TU 3-35-7-21ST2

Location: 35- 7-S 21-E 26

Rig Name: UNIT

Spud Date: 12/5/2007

Rig Release: 4/26/2008

Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
4/7/2008	06:00 - 14:00	8.00	DRL	1	GPM- 235, MW- 14.2, VIS- 48, BG GAS- 5450u W/8' FLARE, CONN GAS- 5900u W/ 30' FLARE, NO LOSSES
	14:00 - 15:00	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION TOP PIPE RAMS & COM
	15:00 - 06:00	15.00	DRL	1	DRILL THRU BUSTER F/ 15,658'-16,020', WOB- 8-12K, RPM- 105 COMBINED, GPM- 214, MW- 14.6, VIS- 48, BG GAS- 2380u W/3' FLARE, CONN GAS- 5630u W/ 30' FLARE
4/8/2008	06:00 - 15:00	9.00	DRL	1	DRILL THRU BUSTER F/ 16,020'-16,303', WOB- 8-12K, RPM- 105 COMBINED, GPM- 214, MW- 14.6, VIS- 48, BG GAS- 2350u W/ 5' FLARE, CONN GAS- 4400u W/ 30' FLARE, NO LOSSES
	15:00 - 16:00	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION LOWER PIPE RAMS & COM
	16:00 - 21:00	5.00	DRL	1	DRILL THRU BUSTER F/ 16,303'-16,431', DRLG W/ SAME PARAMETERS, MW & VIS, BG GAS- 2400u W/ 4' FLARE, CONN GAS- 4450 W/ 30' FLARE, NO LOSSES
	21:00 - 21:30	0.50	RIG	2	REPAIR LEAKING HAMMER UNION ON STANDPIPE MANIFOLD
	21:30 - 06:00	8.50	DRL	1	DRILL F/ 16,431'-16,689', WOB- 8-12K, RPM- 105 COMBINED, GPM- 214, MW- 14.7, VIS- 48, BG GAS- 2330u VENTING W/ 3' FLARE, CONN GAS- 4540u THRU BUSTER W/ 30' FLARE, NO LOSSES
4/9/2008	06:00 - 11:30	5.50	DRL	1	DRILL F/ 16,689'-16,818', WOB- 8-12K, RPM- 105 COMBINED, GPM-214, MW- 14.7, VIS- 48, BG GAS- 2540u VENTING W/ 2' FLARE, CONN GAS- 4600u THRU BUSTER W/ 30' FLARE, NO LOSSES
	11:30 - 12:30	1.00	RIG	1	LUBRICATE RIG & TOP DRIVE, FUNCTION HCR & COM
	12:30 - 06:00	17.50	DRL	1	DRILL F/ 16,818'-17,212', WOB- 8-12K, RPM- 105 COMBINED, GPM- 214, MW- 14.7, VIS- 49, BG GAS-2145u VENTING W/ 2' FLARE, CONN GAS- 4600u THRU BUSTER WITH 30' FLARE
4/10/2008	06:00 - 17:00	11.00	DRL	1	DRILL FROM 17212 TO 17540 - RECALABRATED ALL EQUIPMENT
	17:00 - 18:00	1.00	RIG	1	SERVICE RIG AND TOP DRIVE
	18:00 - 06:00	12.00	DRL	1	DRILL FROM 17540 TO 17880 - NO LOSSES AT PRESENT - DAKOTA SILT CAME IN AT 17686'
4/11/2008	06:00 - 11:00	5.00	RIG	2	REPAIR TOP DRIVE UNIT - WAIT FOR NEW BELTS FROM TOWN AND CHANGE OUT
	11:00 - 12:30	1.50	CIRC	1	SPOT WT. PILL AND TRIP SLUG
	12:30 - 16:30	4.00	TRP	10	TRIP OUT LOW LOW
	16:30 - 17:00	0.50	BOP	1	PULL RT. HEAD
	17:00 - 18:00	1.00	TRP	10	TRIP OUT
	18:00 - 23:00	5.00	TRP	10	CREW CHANGE - TRIP OUT
	23:00 - 00:30	1.50	TRP	1	HANDLE BHA - LD MM AND BIT AND PICK UP SAME - SURFACE TEST MM
	00:30 - 01:00	0.50	OTH		CLEAN FLOOR FOR TRIP IN TO HOLE
	01:00 - 01:30	0.50	TRP	1	LEAVE 3 STANDS COLLARS IN DERRICK AND PICK UP 6 JOINTS OF HWDP - WILL MAKE UP OTHER THREE WITH DP
	01:30 - 02:30	1.00	TRP	2	TRIP BHA INTO HOLE AND FILL PIPE
	02:30 - 03:30	1.00	OTH		CHANGE OUT LOAD CELL CABLE FOR PIPE TORQUE
	03:30 - 06:00	2.50	TRP	2	TRIP IN TO HOLE FILLING EVERY 3 ROWS - WILL BE UNLOADING CASING FRIDAY MORNING - TRUCKS SHOWED UP AT MID-NITE AND 0130 - NOT TO BE HERE UNTILL 10:00 - THE FIRST TRUCK THAT SHOEWED UP HAS LAST LOAD OF Q125
4/12/2008	06:00 - 08:00	2.00	RIG	2	WORK ON EATON BRAKE FOR DRAWWORKS
	08:00 - 11:00	3.00	TRP	2	TRIP IN TO HOLE FILLING EVERY 3 ROWS
	11:00 - 11:30	0.50	BOP	1	INSTALL RT HEAD
	11:30 - 12:00	0.50	CIRC	1	CIRCULATE 2000' OF WT. PILL UP HOLE
	12:00 - 15:30	3.50	TRP	2	TRIP IN TO HOLE - STAGE IN TO HOLE EVERY 1000'
	15:30 - 16:00	0.50	REAM	1	WASH AND REAM FROM 17780 TO 17877
	16:00 - 17:30	1.50	DRL	1	DRILL FROM 17877 TO 17880
	17:30 - 18:00	0.50	CIRC	1	SLOW PUMP RATES AND CONNECTION
	18:00 - 06:00	12.00	DRL	1	DRILL FROM 17880 TO 17930 - NO LOSSES - DAKOTA CAME IN AT 17896' -

CONFIDENTIAL

Printed: 8/12/2008 1:03:50 PM

## Operations Summary Report

Well Name: TU 3-35-7-21ST2

Location: 35-7-S 21-E 26

Rig Name: UNIT

Spud Date: 12/5/2007

Rig Release: 4/26/2008

Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
4/12/2008	18:00 - 06:00	12.00	DRL	1	LOOKING FOR DAKOTA SAND AT 18110 + OR - MORRISON AT 18150 WITH POSSIBLE TD AT 18175
4/13/2008	06:00 - 10:30	4.50	DRL	1	DRILL FROM 17930 TO 17953
	10:30 - 11:30	1.00	RIG	1	SERVICE RIG AND TOP DRIVE
	11:30 - 18:00	6.50	DRL	1	DRILL FROM 17953 TO 17973
	18:00 - 18:30	0.50	DRL	1	DRILL FROM 17973 TO 17978
	18:30 - 19:00	0.50	CIRC	1	SLOW PUMP RATES AND EXTRA REAM TIME ON CONNECTIONS
	19:00 - 06:00	11.00	DRL	1	DRILL FROM 17978 TO 18023 - NO LOSSES - WE HAVE HIT TWO SMALL FRACTURS WITH VERY SMALL AMOUNTS OF GAS BUT HAD TO RUN LIGHT BIT WT. TO GET THREW - BLEW POP OFF ONE TIME
4/14/2008	06:00 - 11:00	5.00	DRL	1	DRILL FROM 18023 TO 18042
	11:00 - 12:00	1.00	RIG	1	SERVICE RIG AND TOP DRIVE
	12:00 - 18:00	6.00	DRL	1	DRILL FROM 18042 TO 18072
	18:00 - 04:00	10.00	DRL	1	DRILL FROM 18072 TO 18111
	04:00 - 04:30	0.50	CIRC	1	SLOW PUMP RATES AND CONNECTIONS
	04:30 - 06:00	1.50	DRL	1	DRILL FROM 18111 TO 18115 - NO LOSSES - NO GOOD FRACTURE YET
4/15/2008	06:00 - 06:30	0.50	DRL	1	TRYING TO GET BIT TO DRILL WITH NO LUCK - ALL DIFF.
	06:30 - 07:00	0.50	RIG	1	SERVICE RIG AND TOP DRIVE
	07:00 - 09:30	2.50	CIRC	1	CIRCULATE BOTTOMS UP - BUILD ECD PILLS
	09:30 - 11:00	1.50	TRP	10	PUMP DRY PILL AND TRIP IN LOW LOW TO 15780'
	11:00 - 13:00	2.00	CIRC	1	CIRCULATE AND PUMP FIRST ECD PILL
	13:00 - 15:00	2.00	TRP	10	TRIP TO 11881
	15:00 - 15:30	0.50	EOP	1	PULL RT. HEAD
	15:30 - 18:00	2.50	TRP	10	TRIP OUT TO 6588
	18:00 - 21:00	3.00	TRP	10	TRIP OF HOLE - CHECK C.O.M.
	21:00 - 22:00	1.00	TRP	1	DRAIN AND LD MM - BIT - CIRCULATING SUB AND CROSS OVER - FUNCTION BOP EQUIPMENT AS PER BLM REQUIREMENTS
	22:00 - 22:30	0.50	OTH		CLEAN FLOOR FOR NEXT OPERATION - LOGGING
	22:30 - 06:00	7.50	LOG	1	HOLD SAFETY MEETING - WILL BE TWO RUNS - #1 = RESISTIVITY PLUS SONIC. ALL SLICK - RIG TALLY = 18115 - LOGGERS = 18126 - SHOULD BE OUT WITH FIRST RUN AT 0530 - HAD TIGHT SPOTS WITH WORST ONE AT 16100' - HAD TO PULL 9500LBS - TRUCK GOOD FOR 11500 TO 12000 - WILL CHAT WITH MONTY AND JIM ABOUT SECOND RUN
4/16/2008	06:00 - 07:00	1.00	WOT	2	WAIT ON ORDERS
	07:00 - 08:00	1.00	LOG	1	RIG DOWN LOGGERS
	08:00 - 09:00	1.00	EOP	1	PULL WEAR BUSHING
	09:00 - 11:30	2.50	TRP	2	MAKE UP BIT AND TRIP BHA INTO HOLE AND FILL PIPE
	11:30 - 12:30	1.00	RIG	1	SERVICE RIG AND TOP DRIVE - REPLACE WT. INDICATOR
	12:30 - 17:00	4.50	TRP	2	TRIP IN TO HOLE FILLING PIPE EVERY 2500'
	17:00 - 17:30	0.50	EOP	1	INSTALL RT. HEAD
	17:30 - 18:00	0.50	RIG	6	START PREPARING TO CUT DRILL LINE
	18:00 - 20:00	2.00	RIG	6	FINISH CUTTING DRILL LINE - 377' TO GET RID OF BAD SPOT
	20:00 - 21:00	1.00	RIG	2	REPAIR 2 STUDS ON DEADMAN
	21:00 - 21:30	0.50	CIRC	1	CIRCULATE ECD PILL PART WAY UP HOLE
	21:30 - 22:30	1.00	RIG	2	REPAIR SPLIT HOSE ON RADIATOR ON TOPDRIVE
	22:30 - 01:00	2.50	TRP	2	TRIP IN TO HOLE FILLING AT 25 STANDS - SEEN NO TIGHT SPOTS IN OPEN HOLE
	01:00 - 01:30	0.50	REAM	1	SAFETY REAM 60' TO BOTTOM - 3' OF FILL
	01:30 - 06:00	4.50	DRL	1	DRILL FROM 18115 TO 18130 - 0500 WE HAVE LOST 83 BBLs MUD - STILL DRILLING WITH RETURNS - PUMPING SWEEPS - STARTED LOSING MUD FROM DRILLING BREAK 18121 TO 18122
4/17/2008	06:00 - 18:00	12.00	DRL	1	DRILL FROM 18130 TO 18163
	18:00 - 06:00	12.00	DRL	1	DRILL FROM 18163 TO 18202 - LOSSES = 4 BPH - STILL SWEEPING EVERY

CONFIDENTIAL

## Operations Summary Report

Well Name: TU 3-35-7-21ST2

Location: 35- 7-S 21-E 26

Rig Name: UNIT

Spud Date: 12/5/2007

Rig Release: 4/26/2008

Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
4/17/2008	18:00 - 06:00	12.00	DRL	1	HOUR - HOURS ON BIT AT 0600 = 28.5 - BHA HOURS AS OF 0600 = 295.5
4/18/2008	06:00 - 10:30	4.50	DRL	1	DRILL FROM 18202 TO 18213 - HAD A COUPLE SMALL TORQUE SPIKE - TALKED TO EVERYBODY AND DECIDED TO TRIP
	10:30 - 11:30	1.00	RIG	1	SERVICE RIG AND TOP DRIVE - WHILE CIRCULATING BOTTOMS UP
	11:30 - 12:30	1.00	CIRC	1	FINISH CIRCULATING BOTTOMS UP
	12:30 - 13:00	0.50	FTST	2	FLOW CHECK - OK - PUMP TRIP SLUG
	13:00 - 15:00	2.00	TRP	10	TRIP 30 STANDS OUT TO 15600
	15:00 - 16:00	1.00	CIRC	1	SPOT ECD PILL
	16:00 - 17:30	1.50	TRP	10	TRIP 35 STANDS OUT TO TOP OF ECD PILL
	17:30 - 18:00	0.50	CIRC	1	CIRCULATE BOTTOMS UP AT 11800
	18:00 - 18:30	0.50	CIRC	1	FINISH CIRCULATING BOTTOMS UP AT 11800
	18:30 - 19:00	0.50	CIRC	1	FLOW CHECK - OK - PUMP TRIP SLUG
	19:00 - 20:00	1.00	TRP	10	TRIP OUT BIT
	20:00 - 20:30	0.50	EOP	1	CHECK FOR FLOW - OK - PULL RT. HEAD
	20:30 - 00:00	3.50	TRP	10	TRIP OUT IN SECOND GEAR TO PREVENT SWABBING - WELL TRYING TO BALLON IF PULLING TO FAST -
	00:00 - 05:30	5.50	ISP	1	INSPECT BHA AND CHANGE OUT JARS
	05:30 - 06:00	0.50	TRP	1	CHANGE OUT BIT - CHECK FLOAT IN BIT SUB
4/19/2008	06:00 - 06:30	0.50	TRP	2	TRIP BHA IN TO HEAVY WT. AND FILL - TRIP SPEED VERY SLOW - TRIP SPEED = 100 ON PASON
	06:30 - 08:00	1.50	TRP	2	TRIP OUT FOR FAILED FLOAT - COULD NOT GET TO HOLD
	08:00 - 08:30	0.50	TRP	1	CHANGE OUT FLOAT
	08:30 - 10:00	1.50	TRP	2	TRIP IN BHA - FILL AND CIRCULATE FOR 5 MIN.
	10:00 - 14:30	4.50	TRP	2	STAGE IN VERY SLOWLY - FILLING EVERY TWO ROWS AND CIRC. FOR 15 MIN. EACH TIME
	14:30 - 15:00	0.50	EOP	1	INSTALL RT. HEAD
	15:00 - 17:00	2.00	TRP	2	STAGE IN TO HOLE FILLING AND CIRCULATING EVERY TWO ROWS
	17:00 - 18:00	1.00	CIRC	1	CIRCULATE FROM SHOE
	18:00 - 21:00	3.00	TRP	2	TRIP TO 16195 SLOWLY AND PUMP 1400 STROKES WHILE LEAVING 20 BBLS OF 10% LCM AT BIT
	21:00 - 21:30	0.50	REAM	1	SAFETY WASH AND REAM 60' TO BOTTOM
	21:30 - 03:00	5.50	DRL	1	DRILL FROM 18213 TO 18231
	03:00 - 03:30	0.50	CIRC	1	CONNECTION AND SLOW PUMP RATES
	03:30 - 06:00	2.50	DRL	1	DRILL FROM 18231 TO 18241 - WELL BALLONING WITH 15# MUD WT. WORKING TO GET BACK TO 14.8 TO 14.9 - LOSSING 2 BBLS PER HOUR - GAINED 4 BBLS ON CONNECTION - PUMPING 10 BBL 10% LCM SWEEPS EVERY HOUR - LOOKING FOR MORRISON AROUND 18250 - TOTAL TRIP WE LOST 52 BBLS MUD - PIT HANDS AND MUD ENGINEER DID GOOD JOB GETTING MUD TO 15# - BOTTOMS UP FROM GAS AT 15270 = 2740 WITH 30' FLARE - WITH BOTTOMS UP AT 18213 = 3990 WITH SHORT LIVED 35' FLARE
4/20/2008	06:00 - 18:00	12.00	DRL	1	DRILL FROM 18241 TO 18275
	18:00 - 19:30	1.50	DRL	1	DRILL FROM 18275 TO 18280 = TD
	19:30 - 21:00	1.50	CIRC	1	CIRCULATE A FULL BOTTOMS UP FOR FLOW CHECK
	21:00 - 21:30	0.50	CIRC	1	FLOW CHECK - 4.8 BBLS GAIN - 1/4 IN. FLOW AFTER 30 MIN.
	21:30 - 23:30	2.00	CIRC	1	CIRC. BOTTOMS UP AND PUMP DRY PILL FOR SHORT TRIP
	23:30 - 03:00	3.50	TRP	14	SHORT TRIP 33 STANDS OUT AND IN - LOW GEAR OUT - 80 TRIP SPEED IN
	03:00 - 05:30	2.50	CIRC	1	CIRCULATE BOTTOMS UP - SPOT 20 BBLS LCM PILL ON BOTTOM AND PUMP TRIP PILL
	05:30 - 06:00	0.50	TRP	2	TRIP OUT FOR LOGS
4/21/2008	06:00 - 07:30	1.50	TRP	2	TRIP 30 STANDS OUT
	07:30 - 09:30	2.00	CIRC	1	SPOT ECD PILL - DID NOT BALANCE - FLOAT FAILED
	09:30 - 11:30	2.00	CIRC	1	CIRCULATE HOLE CLEAN FOR NEW ECD PILL
	11:30 - 12:30	1.00	CIRC	1	SPOT NEW ECD PILL

## Operations Summary Report

Well Name: TU 3-35-7-21ST2

Location: 35- 7-S 21-E 26

Rig Name: UNIT

Spud Date: 12/5/2007

Rig Release: 4/26/2008

Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
4/21/2008	12:30 - 15:30	3.00	TRP	2	TRIP OUT
	15:30 - 16:00	0.50	BOP	1	PULL RT HEAD
	16:00 - 18:00	2.00	TRP	2	TRIP OUT FOR LOGS
	18:00 - 20:00	2.00	TRP	2	FINISH TRIP OUT
	20:00 - 20:30	0.50	TRP	1	BREAK BIT AND BIT SUB
	20:30 - 21:30	1.00	LOG	1	HOLD SAFETY MEETING - RIG UP LOGGERS - LOG HOLE
	21:30 - 03:30	6.00	LOG	1	RUN IN FOR LOGS - FIRST TOOL QUIT AT THE SHOE THEN POWERED UP AT 9000' SO WE WENT BACK TO BOTTOM - SECOND RUN OK - LOGGERS DEPTH = 18300 -
	03:30 - 04:30	1.00	LOG	1	RIG LOGGERS DOWN
	04:30 - 06:00	1.50	TRP	1	MAKE UP BIT AND FLOAT SUB - TRIP IN BHA AND FILL PIPE - TRIP SPEED WILL BE 125 FOR HIGH LIMIT
4/22/2008	06:00 - 11:00	5.00	TRP	2	STAGE INTO HOLE -
	11:00 - 11:30	0.50	BOP	1	INSTALL RT. HEAD
	11:30 - 14:30	3.00	TRP	2	STAGE INTO HOLE TO SHOE
	14:30 - 16:00	1.50	RIG	6	CUT DRILL LINE - 96'
	16:00 - 17:00	1.00	RIG	1	SERVICE RIG AND TOP DRIVE
	17:00 - 18:00	1.00	TRP	2	STAGE IN TO HOLE
	18:00 - 20:30	2.50	TRP	2	FINISH TRIP TO BOTTOM - HOLE CLEAN
	20:30 - 23:00	2.50	CIRC	1	CIRCULATE AND CONDITION MUD TO 15.0 - CIRC. OUT GAS
	23:00 - 00:00	1.00	CIRC	1	SPOT 35 BBLS OF 10% LCM AND PUMP DRY PILL
	00:00 - 01:30	1.50	TRP	2	TRIP 30 STANDS OUT IN LOW LOW
	01:30 - 02:00	0.50	CIRC	1	SPOT ECD PILL
	02:00 - 03:30	1.50	TRP	2	TRIP 30 STANDS OUT TO INSIDE SHOE
	03:30 - 04:30	1.00	CSG	1	HOLD SAFETY MEETING AND RIG UP LD CREW
	04:30 - 06:00	1.50	TRP	3	LAY DOWN DRILL PIPE
4/23/2008	06:00 - 08:00	2.00	TRP	3	LDDP
	08:00 - 10:00	2.00	TRP	2	LD FLAG POLE AND TRIP 30 STANDS IN SLOWLY
	10:00 - 12:30	2.50	TRP	3	PICK UP FLAF POLE AND LDDP
	12:30 - 13:30	1.00	RIG	1	SERVICE RIG AND TOP DRIVE
	13:30 - 14:30	1.00	TRP	2	LDDP
	14:30 - 15:00	0.50	CIRC	1	FILL TRIP TANK
	15:00 - 16:30	1.50	TRP	2	LD DRILL PIPE AND LD FLAG POLE
	16:30 - 17:00	0.50	RIG	2	REPAIR CYLINDER ON BALES
	17:00 - 18:00	1.00	TRP	2	SLOWLY TRIP LAST 30 STANDS INTO HOLE
	18:00 - 19:00	1.00	CIRC	1	CIRCULATE PIPE AND HOLE CLEAN AND PUMP DRY SLUG - HOLD SAFETY MEETING AND REINSTALL FLAG POLE FOR LDDP
	19:00 - 21:30	2.50	TRP	3	LDDP FROM 9600 TO 7100
	21:30 - 22:00	0.50	BOP	1	REMOVE RT. HEAD
	22:00 - 00:30	2.50	TRP	3	LDDP FROM 7100 TO 3500
	00:30 - 05:00	4.50	CSG	1	LD TRUCK BROKE PTO SHAFT THAT SUPPLIES POWER FOR HYDRAULICS - RIG DOWN TRUCK - GET NEW TRUCK FROM TOWN AND RIG UP SAME
4/24/2008	05:00 - 06:00	1.00	TRP	3	LDDP
	06:00 - 08:30	2.50	TRP	1	FINISH LD OF DRILL PIPE AND BHA
	08:30 - 09:30	1.00	OTH		CLEAR FLOOR - CLEAN FLOOR CASING RIG UP
	09:30 - 11:00	1.50	CSG	1	HOLD SAFETY MEETING - RIG UP CASING CREW
	11:00 - 13:30	2.50	CSG	2	RUN CASING WITH A TRIP SPEED OF 120 MAX
	13:30 - 14:00	0.50	RIG	1	SERVICE RIG AND TOP DRIVE
	14:00 - 18:00	4.00	CSG	2	RUN CASING IN
	18:00 - 20:00	2.00	CSG	2	RUN CASING
	20:00 - 20:30	0.50	BOP	1	INSTALL NON ROTARY RT. HEAD
	20:30 - 21:00	0.50	CIRC	1	CIRCULATE TRIP SLUG UP AT 8600'
	21:00 - 00:30	3.50	CSG	2	RUN CASING TO 13250'

CONFIDENTIAL

## Operations Summary Report

Well Name: TU 3-35-7-21ST2  
 Location: 35- 7-S 21-E 26  
 Rig Name: UNIT

Spud Date: 12/5/2007  
 Rig Release: 4/26/2008  
 Rig Number: 109

Date	From - To	Hours	Code	Sub Code	Description of Operations
4/24/2008	00:30 - 01:00	0.50	CIRC	1	CIRCULATE - STAGE FLUID UP THE HOLE
	01:00 - 06:00	5.00	CSG	2	FINISH RUNNING CASING - TAGGED BOTTOM - ADDED 11.93 PUP JOINT TO GET CLOSER TO BOTTOM
4/25/2008	06:00 - 07:00	1.00	CSG	1	RIG DOWN CASING CREW AND INSTALL CEMENT HEAD FOR CIRCULATING
	07:00 - 13:30	6.50	CIRC	1	CIRCULATE AND CONDITION MUD TO 14.85 FOR FINAL CEMENT JOB
	13:30 - 17:30	4.00	CMT	2	HELD SAFETY MEETING - PSI TEST LINES TO 12000# - START AND FINISH CEMENT JOB WITH FULL RETURNS - PUMPED 20 BBL 15.5 TUNED SPACER @ 5 BBL PM - PUMPED 20 BBL 14.5 TUNED SPACER @ 5 BBL PM - PUMPED 93 BBL LEAD @ 14.0 @ 5 BBL PM - PUMPED 134 BBL TAIL @ @ 15.1 @ 5 BBL PM - WASH UP - DROP PLUG - VISUALLY CHECK TO SEE IF PLUG WENT - OK - PUMPED CLAYFIX @ 5 BBLPM - THEN 4 BBL PM - LAST 85 BBLS AT 2.1 BBLS PM - @ 7950 PSI - BUMP PLUG TO 8600 PSI - HELD FOR 30 MIN. - RELEASE AND FLOAT HELD
	17:30 - 18:00	0.50	CMT	1	START RIGGING DOWN CEMENTERS
	18:00 - 19:00	1.00	CMT	1	FINISH RIGGING DOWN CEMENTERS
	19:00 - 23:30	4.50	CSG	7	FLUSH ALL LINES WITH 175 DEGREE WATER WITH OPTICLEAN - PREPAIR FOR LIFTING STACK - PULL MOUSE HOLE - RIG DOWN KOOMEY LINES - DRIP PANS ECT.
	23:30 - 03:00	3.50	EOP	1	HOLD SAFETY MEETING - NIPPLE DOWN STACK FOR BOP LIFT - SET WINCHES
	03:00 - 06:00	3.00	CSG	7	LIFT STACK - SET SLIPS - 185K ON SLIPS - NOT ENOUGH ROOM FOR PACK-OFF - CUT CASING - RE SET STACK - USE CELLAR PUMP TO SUCK ALL OIL BASE OUT FOR SUPER SUCKERS - TRANSFER 437 BBLS TO RIG 328 - MTR COMPLETED
	06:00 - 18:00	12.00	LOC	7	CLEAN PITS - CLEAN RIG FLOOR - START RIGGING DOWN TOP DRIVE
	18:00 - 06:00	12.00	LOC	7	CLEAN PITS - INSIDE AND OUT SIDE - TOP DRIVE RIGGED DOWN EXCEPT RAIL - BLACKHILLS TO MOVE RIG - THEY DO HAVE TRIBAL PERMITTS - RIG SHOULD BE RELEASED THIS AM - SUPER SUCKERS LEFT LAST NIGHT WITHOUT TELLING ANYBODY, WILL CHECK OUT PITS IN DAYLIGHT
4/26/2008	06:00 - 18:00	12.00	LOC	7	FINISHED ON PITS - SHAKERS AND BAR HOPPERS - RIF RELEASED
	12:00 - 18:00	6.00	LOC	4	RIG DOWN - RIG DOWN TORQUE TUBE - LINEGUIDE - SLIP FOR LD OF DERRICK - LD SWIVEL - PREPAIR MUD TANKS
4/27/2008	18:00 - 06:00	12.00	LOC	4	RIG DOWN - BRIDAL UP - CLEAN SUBS - LOWER WINTERIZING - RAISE CATWALK - CLEAN AND CHANGE OIL IN RT. TABLE - RIG DOWN KOOMEY - 2 BOLT VENT LINE LINE TO BUSTER

CONFIDENTIAL

CONFIDENTIAL

Questar E &amp; P

Page 1 of 2

## Operations Summary Report - Completion

Well Name: TU 3-35-7-21ST2

Location: 35- 7-S 21-E 26

Rig Name:

Spud Date: 12/5/2007

Rig Release:

Rig Number:

Date	From - To	Hours	Code	Sub Code	Description of Operations
5/7/2008	12:00 - 17:00	5.00	LOG	4	MIRU E&E SLU. MU & RIH WITH OIL/SPANG JARS & 3.50" GR. TAG PBTD @ 18,227' (WITH 25'). FC @ 18,264'. POOH. RDMO SLU.
5/8/2008	07:00 - 14:30	7.50	LOG	2	MIRU LONE WOLF ELU. MU AND RIH WITH CCL/GR/CBL/VDL LOGGING TOOLS. TAG CORRELATED PBTD AT 18,236'. PULL 300' STRIP TO CORRELATE TO HES OH LOG DATED 4/20/08. LOG FROM PBTD TO 7,500' WITH 4,000 PSI. EST. TOC AT 10,282'. BHT 305*.
5/12/2008	07:00 - 14:30	7.50	LOG	2	MIRU SLB ELU. MU & RIH WITH CCL/GR/CNL LOGGING TOOLS. TAG CORRELATED PBTD AT 18,243'. PULL 300' STRIP TO CORRELATE TO LONE WOLF CBL LOG DATED 5/8/08. LOG FROM PBTD TO 12,600' WITH ZERO PSI. BHT 308*.
	14:30 - 17:30	3.00	EQT	1	NU 4 1/16" 15K FRAC HEAD. PRESSURE TEST CSG TO 10,000 PSI. PRESSURE TEST 4.5" X 7.0" ANNULUS TO 3,000 PSI. BOTH TEST GOOD.
5/18/2008	07:00 - 14:00	7.00	PERF	2	MIRU OWP ELU. PERF STG 1 W/ 7- 2' GUNS LOADED 3 SPF, 120* PHASE, 11 GRAM CHARGE WITH 700 PSI. SHOOT 42 HOLES FROM 18,114' TO 18,237'.
	14:00 - 16:00	2.00	STIM	2	MIRU HES.
5/19/2008	07:00 - 08:30	1.50	STIM	3	FRAC STAGE #1 WITH 800 GAL. 15% HCL AT 10 BPM, 1,395 BBLS SLICKWATER CARRYING 15,000 LBS# 30/60 SINTERLITE SAND. AVG RATE= 33.3 BPM. AVG PSI= 10,806. SCREENED OUT IN 0.75 PPA SAND STAGE.
	08:30 - 13:00	4.50	OTH		FLOWED CSG TO TANK TO CLEAN UP WELLBORE. RE-PUMPED FLUSH AND PRESSURED OUT 120 BBLS INTO FLUSH (FLUSH VOLUME=260 BBLS). CONTINUE ON WITH NEXT STAGE.
	13:00 - 16:00	3.00	PERF	2	PERF STG #2 WITH 5- 2' & 4- 1' GUNS LOADED 3 SPF, 120* PHASE, 11 GRAM CHARGE WITH 7,400 PSI. SHOOT 42 HOLES FROM 17,512' TO 18,002'.
	16:00 - 17:30	1.50	STIM	3	FRAC STAGE #2 WITH 800 GAL. 15% HCL AT 10 BPM, 932 BBLS SLICKWATER CARRYING 3,112 LBS# 30/60 SINTERLITE SAND. AVG RATE= 23.3 BPM. AVG PSI= 11,437.
	17:30 - 20:30	3.00	PERF	2	PERF STG #3 WITH 6- 2' & 2- 1' GUNS LOADED 3 SPF, 120* PHASE, 11 GRAM CHARGE WITH 9,000 PSI. SHOOT 42 HOLES FROM 16,830' TO 17,404'.
5/20/2008	07:00 - 09:00	2.00	STIM	3	FRAC STAGE #3 WITH 800 GAL. 15% HCL AT 10 BPM, 2,989 BBLS SLICKWATER CARRYING 41,690 LBS# 30/60 SINTERLITE SAND. AVG RATE= 35.0 BPM. AVG PSI= 11,166.
	09:00 - 14:00	5.00	PERF	2	PERF STG #4 WITH 3- 2' & 8- 1' GUNS LOADED 3 SPF, 120* PHASE, 11 GRAM CHARGE. SET CBP @ 16,775' WITH 9,600 PSI. SHOOT 42 HOLES FROM 16,092' TO 16,729'.
	14:00 - 16:00	2.00	STIM	3	FRAC STAGE #4 WITH 800 GAL. 15% HCL AT 10 BPM, 2,342 BBLS SLICKWATER CARRYING 29,096 LBS# 30/60 SINTERLITE SAND. AVG RATE= 31.3. BPM. AVG PSI= 10,971.
	16:00 - 19:00	3.00	PERF	2	PERF STG #5 WITH 4- 2' & 6- 1' GUNS LOADED 3 SPF, 120* PHASE, 11 GRAM CHARGE. SET CFP @ 16,035' WITH 9,000 PSI. SHOOT 42 HOLES FROM 15,415' TO 15,984'. SDFN
5/21/2008	07:00 - 09:00	2.00	STIM	3	FRAC STAGE #5 WITH 800 GAL. 15% HCL AT 10 BPM, 2,186 BBLS SLICKWATER CARRYING 40,152 LBS# 30/60 SINTERLITE SAND. AVG RATE= 34.4 BPM. AVG PSI= 10,452.
	09:00 - 12:30	3.50	PERF	2	PERF STG #6 WITH 4- 2' & 6- 1' GUNS LOADED 3 SPF, 120* PHASE, 11 GRAM CHARGE. SET CBP @ 15,340' WITH 8,400 PSI. SHOOT 42 HOLES FROM 14,712' TO 15,300'.
	12:30 - 14:00	1.50	STIM	3	FRAC STAGE #6 WITH 800 GAL. 15% HCL AT 10 BPM, 1,934 BBLS SLICKWATER CARRYING 30,997 LBS# 30/60 SINTERLITE SAND. AVG RATE= 33.7 BPM. AVG PSI= 11,034.

CONFIDENTIAL

## Operations Summary Report

Well Name: TU 3-35-7-21ST2

Location: 35- 7-S 21-E 26

Rig Name:

Spud Date: 12/5/2007

Rig Release:

Rig Number:

Date	From - To	Hours	Code	Sub Code	Description of Operations
5/21/2008	14:00 - 16:30	2.50	PERF	2	PERF STG #7 WITH 3- 2' & 8- 1' GUNS LOADED 3 SPF, 120* PHASE, 11 GRAM CHARGE. SET CBP @ 14,636' WITH 8,000 PSI. SHOOT 42 HOLES FROM 13,916' TO 14,602'.
	16:30 - 18:00	1.50	STIM	3	FRAC STAGE #7 WITH 800 GAL. 15% HCL AT 10 BPM, 2,475 BBLS SLICKWATER CARRYING 47,302 LBS# 30/60 SINTERLITE SAND. AVG RATE= 42.4 BPM. AVG PSI= 9,586.
5/22/2008	06:00 - 09:00	3.00	PERF	2	PERF STG #8 WITH 3- 2' & 8- 1' GUNS LOADED 3 SPF, 120* PHASE, 11 GRAM CHARGE. SET CFP @ 13,840' WITH 6,200 PSI. SHOOT 42 HOLES FROM 13,229' TO 13,802'.
	09:00 - 10:15	1.25	STIM	3	FRAC STAGE #8 WITH 800 GAL. 15% HCL AT 10 BPM, 3,231 BBLS SLICKWATER CARRYING 70,358 LBS# 30/60 SINTERLITE SAND. AVG RATE= 46.8 BPM. AVG PSI= 8,423.
	10:15 - 12:30	2.25	PERF	2	PERF STG #9 WITH 6- 1' GUNS LOADED 3 SPF, 120* PHASE, 11 GRAM CHARGE. SET CFP @ 11,950' WITH 5,600 PSI. SHOOT 18 HOLES FROM 11,740' TO 11,922'.
	12:30 - 14:00	1.50	STIM	3	FRAC STAGE #9 WITH 800 GAL. 15% HCL AT 10 BPM, 2,422 BBLS SLICKWATER CARRYING 50,360 LBS# 30/60 SINTERLITE SAND. AVG RATE= 42.8 BPM. AVG PSI= 8,910.
	14:00 - 15:30	1.50	PERF	2	PERF STG #10 WITH 3- 2' & 6- 1' GUNS LOADED 3 SPF, 120* PHASE, 11 GRAM CHARGE. SET CBP @ 11,310' WITH 5,600 PSI. SHOOT 36 HOLES FROM 10,772' TO 11,285'.
	15:30 - 16:30	1.00	STIM	3	FRAC STAGE #10 WITH 800 GAL. 15% HCL AT 10 BPM, 2,580 BBLS SLICKWATER CARRYING 60,231 LBS# 30/60 SINTERLITE SAND. AVG RATE= 49.0 BPM. AVG PSI= 3,195.
	16:30 - 18:30	2.00	PERF	2	PERF STG #11 WITH 6- 1' GUNS LOADED 3 SPF, 120* PHASE, 11 GRAM CHARGE. SET CFP @ 10,400' WITH 3,000 PSI. SHOOT 18 HOLES FROM 10,022' TO 10,379'.
5/23/2008	06:00 - 07:10	1.17	STIM	3	FRAC STAGE #11 WITH 800 GAL. 15% HCL AT 10 BPM, 2038 BBLS SLICKWATER CARRYING 40,672 LBS# 20/40 CRC SAND. AVG RATE= 45.8 BPM. AVG PSI= 7,783.
	07:10 - 09:00	1.83	PERF	2	PERF STG #12 WITH 6- 1' GUNS LOADED 3 SPF, 120* PHASE, 11 GRAM CHARGE. SET CFP @ 9,320' WITH 2,800 PSI. SHOOT 33 HOLES FROM 8,401' TO 9,304'. RDMO OWP ELU.
	09:00 - 11:30	2.50	STIM	3	FRAC STAGE #12 WITH 800 GAL. 15% HCL AT 10 BPM, 963 BBLS SLICKWATER CARRYING 70,876 LBS# 20/40 CRC SAND. AVG RATE= 42.7 BPM. AVG PSI = 4,862. RDMO HES FRAC EQUIPMENT.
	11:30 - 17:00	5.50	PERF	2	MIRU IPS CTU, GCDOE, SPIRIT MIXING TANK AND QUALITY MOTOR AND MILL. TEST STACK TO 10,000 PSI. SDFN.
5/24/2008	06:00 - 18:00	12.00	DRL	6	LOAD CT WITH 70" WATER. MU QUALITY 2 7/8" MOTOR/JARS WITH 3.625" 5-BLADE JUNK MILL. TEST STACK TO 10,000 PSI. RIH AND DRILL OUT 9 PLUGS IN 7 HOURS. TAG PBTD AT 18,252'. PUMP FINAL 10 BBLS SWEEP AND POOH. FLOWING TO SALES THRU IPS FBE.
5/25/2008	06:00 - 06:00	24.00	DRL	6	FLOWING TO SALES THRU IPS FBE.
5/26/2008	06:00 - 06:00	24.00	DRL	6	FLOWING TO SALES THRU IPS FBE.
5/27/2008	06:00 - 06:00	24.00	DRL	6	FLOWING TO SALES THRU IPS FBE.
5/28/2008	06:00 - 06:00	24.00	DRL	6	FLOWING TO SALES THRU IPS FBE.
5/29/2008	06:00 - 06:00	24.00	DRL	6	FLOWING TO SALES THRU IPS FBE.
5/30/2008	06:00 - 09:00	3.00	DRL	6	RDMO IPS FBE.

CONFIDENTIAL

OPERATOR:  
ADDRESS:

OPERATOR ACCT. No. N-5085  
**Questar Exploration & Production Co.**  
**11002 E. 17500 S.**  
**Vernal, Utah 84078-8526 (435)781-4342**

Action Code	Current Entity No.	New Entity No.	API Number	Well Name	QQ	SC	TP	RG	County	Spud Date	Effective Date
E	16512	16512	43-047-38995	TU 3-35-7-21	NENW	35	7S	21E	Uintah	11/6/07	3/1/09

WELL 1 COMMENTS: **WMMFD**

**CONFIDENTIAL**

4/14/09

WELL 2 COMMENTS:

WELL 3 COMMENTS:

WELL 4 COMMENTS:

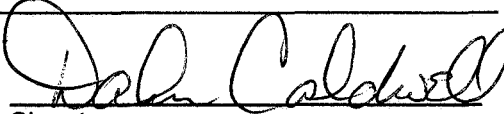
WELL 5 COMMENTS:

ACTION CODES (See instructions on back of form)

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (explain in comments section)

NOTE: Use COMMENT section to explain why each Action Code was selected

(3/89)

  
Signature

Office Administrator  
Title

4/10/09  
Date

Phone No. **(435)781-4342**

RECEIVED

APR 13 2009

DIV. OF OIL, GAS & MINING

**CONFIDENTIAL**



CONFIDENTIAL

Form 3160-5 (November 1994)		UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT <b>SUNDRY NOTICES AND REPORTS ON WELLS</b> <i>Do not use this form for proposals to drill or reenter an abandoned well. Use Form 3160-3 (APD) for such proposals.</i>		FORM APPROVED No. 1004-0135 Expires July 31, 1996	
<b>SUBMIT IN TRIPLICATE - Other Instructions on reverse side</b>				5. Lease Serial No. UTU-73681	
				6. If Indian, Allottee or Tribe Name N/A	
1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other				7. If Unit or CA/Agreement, Name and/or No. TAPADERO UNIT	
2. Name of Operator Questar Exploration & Production Co. Contact: Mike Stahl				8. Well Name and No. TU 3-35-7-21	
3a. Address 11002 East 17500 South, Vernal, UT 84078		3b. Phone No. (include area code) 303-308-3613		9. API Well No. 43-047-38995	
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 810' FNL 1813' FWL, NENW, SECTION 35, T7S, R21E				10. Field and Pool, or Exploratory Area WONSITS VALLEY	
				11. County or Parish, State UINTAH	
12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA					
TYPE OF SUBMISSION		TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent		<input type="checkbox"/> Acidize <input type="checkbox"/> Deepen <input type="checkbox"/> Production (Start/Resume) <input type="checkbox"/> Water Shut-Off			
<input type="checkbox"/> Subsequent Report		<input type="checkbox"/> Alter Casing <input type="checkbox"/> Fracture Treat <input type="checkbox"/> Reclamation <input type="checkbox"/> Well Integrity			
<input type="checkbox"/> Final Abandonment Notice		<input type="checkbox"/> Casing Repair <input type="checkbox"/> New Construction <input type="checkbox"/> Recomplete <input checked="" type="checkbox"/> Other <u>Commingling</u>			
		<input type="checkbox"/> Change Plans <input type="checkbox"/> Plug and Abandon <input type="checkbox"/> Temporarily Abandon			
		<input type="checkbox"/> Convert to Injection <input type="checkbox"/> Plug Back <input type="checkbox"/> Water Disposal			
13. Describe Proposed or Completed Operations (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once Testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)  In Compliance with the Administrative Utah code for drilling and operating practice R649-3-22, completion into two or more pools. Questar Exploration & Production Company hereby requests the commingling of production between intervals in the TU 3-35-7-21. Questar considers this commingling to be in the public interest in that it promotes maximum ultimate economic recovery, prevents waste, provides for orderly and efficient production of oil and gas and presents no detrimental effects from commingling the gas streams.  Questar requests approval for the commingling of production of the Dakota and Wasatch formations. Based upon offset production logs, the proposed initial allocation is as follows: Dakota - 20%, Mancos - 40%, Mesa Verde - 30%, Wasatch - 10%  A production log will be run within 30 to 45 days to determine contribution from each interval. At that time a subsequent Report will be filed detailing the results of the production log.  On an annual basis the gas will be sampled and a determination will be made of the BTU content and gas constituents. These annual samples can be used to determine if the gas allocation is changing over time. If these samples do not indicate that any adjustments in allocation are necessary they may be discontinued after the fifth anniversary of the initial production.					
14. I hereby certify that the foregoing is true and correct					
Name (Printed/Typed) Laura Bills		Title Associate Regulatory Affairs Analyst			
Signature 		Date April 13, 2009			
THIS SPACE FOR FEDERAL OR STATE USE					
Approved by 		Title Pet. Eng.		Date 5/13/09	
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		Office DOG M		Federal Approval Of This Action Is Necessary	
Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.					
COPY SENT TO OPERATOR RECEIVED					
(Instructions on reverse)					
Date: 5.18.2009 Initials: KS APR 16 2009 DIV. OF OIL, GAS & MINING					

## AFFIDAVIT OF NOTICE

STATE OF COLORADO     )  
  ) ss:  
COUNTY OF DENVER     )

Chad W. Matney, being duly sworn, deposes and says:

1. That I am employed by Questar Exploration and Production Company in the capacity as a Landman. My business address is:

Independence Plaza  
1050 17<sup>th</sup> Street, Suite 500  
Denver, CO 80265

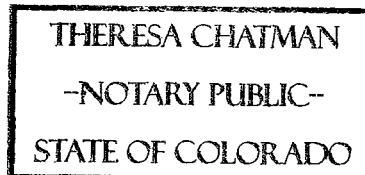
2. In my capacity as a Landman, pursuant to the provisions of Utah Administrative Rule 649-3-22, I have provided a copy of Questar Exploration and Production Company's application for completion of the TU 3-35-7-21 well into two or more pools, in the form of Utah Division of Oil, Gas and Mining's Form 9 Sundry Notice, to owners of all contiguous oil and gas leases or drilling units overlying the pools which are the subject of that application.
3. In my capacity as a Landman, I am authorized to provide such notice of Questar Exploration and Production Company's application to contiguous owners and to make this affidavit on this 10<sup>th</sup> day of April 2009.

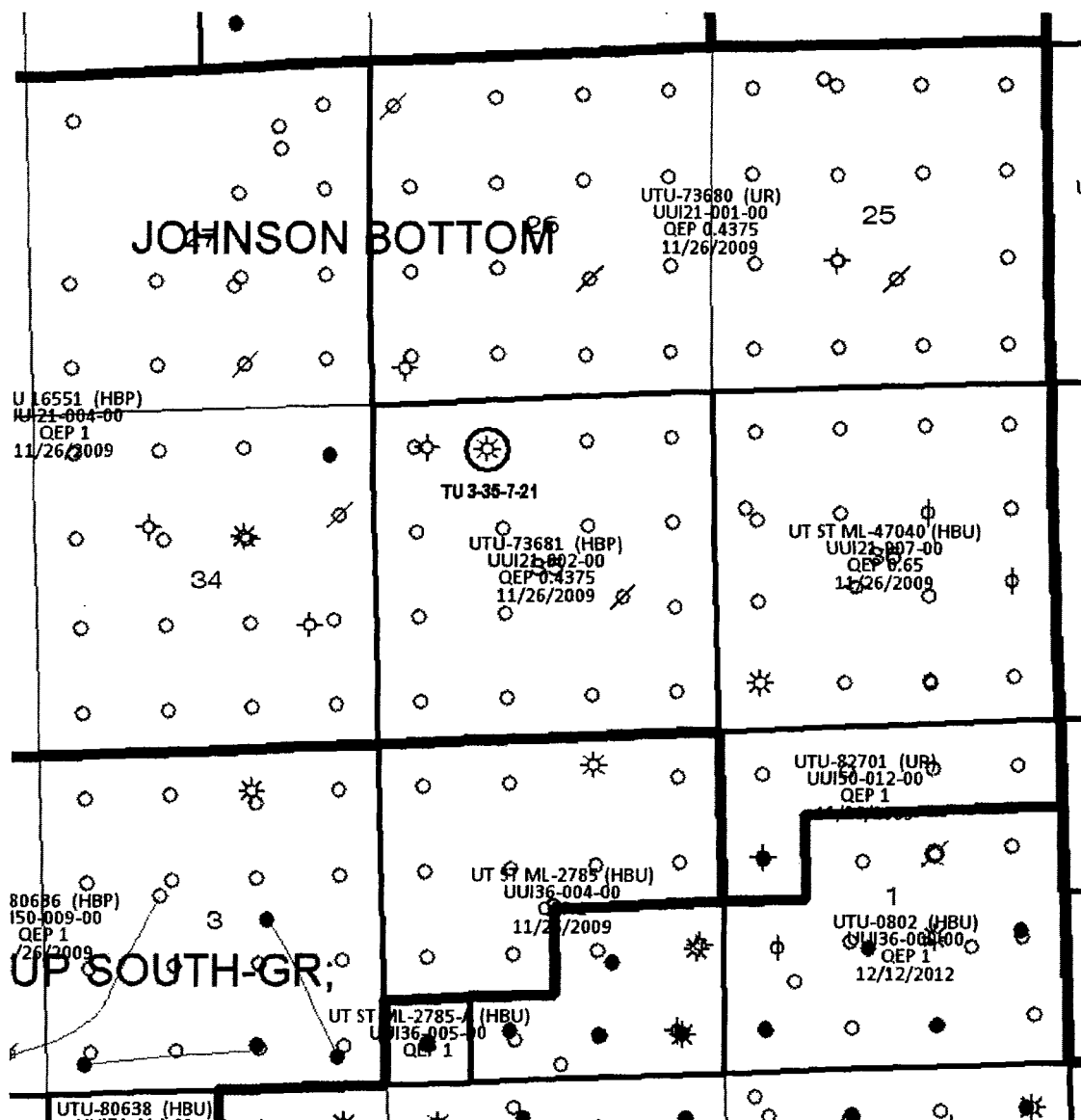
  
Printed Name: Chad W. Matney

The foregoing instrument was sworn to and subscribed before me this 10<sup>th</sup> day of April 2009, by Chad W. Matney.

  
Notary Public

MY COMMISSION EXPIRES: 7/7/11





**T7S-R21E**

○ Commingled well

**Tw/Kmv  
COMMINGLED PRODUCTION**

Uinta Basin—Uintah County, Utah

**Well: TU 3-35-7-21  
Lease: UTU 73681**

**QUESTAR**  
Exploration and  
Production

1050 17th St., # 500 Denver, CO 80265

Geologist:

Landman: Chad Matney

Date: April 7, 2009

Division of Oil, Gas and Mining  
**OPERATOR CHANGE WORKSHEET** (for state use only)

**ROUTING**  
**CDW**

Change of Operator (Well Sold)

**X - Operator Name Change**

The operator of the well(s) listed below has changed, effective:

**6/14/2010**

<b>FROM: (Old Operator):</b> N5085-Questar Exploration and Production Company 1050 17th St, Suite 500 Denver, CO 80265  Phone: 1 (303) 308-3048	<b>TO: ( New Operator):</b> N3700-QEP Energy Company 1050 17th St, Suite 500 Denver, CO 80265  Phone: 1 (303) 308-3048
--	---

CA No.				Unit:		JOHNSON BOTTOM		
WELL NAME	SEC TWN RNG			API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
SEE ATTACHED								

**OPERATOR CHANGES DOCUMENTATION**

Enter date after each listed item is completed

- (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 6/28/2010
- (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 6/28/2010
- The new company was checked on the **Department of Commerce, Division of Corporations Database** on: 6/24/2010
- a. Is the new operator registered in the State of Utah: Business Number: 764611-0143
- a. (R649-9-2)Waste Management Plan has been received on: Requested
- b. Inspections of LA PA state/fee well sites complete on: n/a
- c. Reports current for Production/Disposition & Sundries on: ok
- Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM 8/16/2010 BIA not yet
- Federal and Indian Units:**  
The BLM or BIA has approved the successor of unit operator for wells listed on: 8/16/2010
- Federal and Indian Communization Agreements ("CA"):**  
The BLM or BIA has approved the operator for all wells listed within a CA on: N/A
- Underground Injection Control ("UIC")** Division has approved UIC Form 5 Transfer of Authority to **Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: 6/29/2010

**DATA ENTRY:**

- Changes entered in the **Oil and Gas Database** on: 6/30/2010
- Changes have been entered on the **Monthly Operator Change Spread Sheet** on: 6/30/2010
- Bond information entered in RBDMS on: 6/30/2010
- Fee/State wells attached to bond in RBDMS on: 6/30/2010
- Injection Projects to new operator in RBDMS on: 6/30/2010
- Receipt of Acceptance of Drilling Procedures for APD/New on: n/a

**BOND VERIFICATION:**

- Federal well(s) covered by Bond Number: ESB000024
- Indian well(s) covered by Bond Number: 965010693
- a. (R649-3-1) The **NEW** operator of any state/fee well(s) listed covered by Bond Number 965010695
- b. The **FORMER** operator has requested a release of liability from their bond on: n/a

**LEASE INTEREST OWNER NOTIFICATION:**

- (R649-2-10) The **NEW** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: n/a

**COMMENTS:**

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 9

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER _____		5. LEASE DESIGNATION AND SERIAL NUMBER See attached
2. NAME OF OPERATOR: Questar Exploration and Production Company <i>N5085</i>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: See attached
3. ADDRESS OF OPERATOR: 1050 17th Street, Suite 500 CITY Denver STATE CO ZIP 80265		7. UNIT or CA AGREEMENT NAME: See attached
4. LOCATION OF WELL FOOTAGES AT SURFACE: See attached		8. WELL NAME and NUMBER: See attached
PHONE NUMBER: (303) 672-6900		9. API NUMBER: Attached
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:		10. FIELD AND POOL, OR WILDCAT: See attached
COUNTY: Attached		STATE: UTAH

**11 CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate)  Approximate date work will start: <u>6/14/2010</u>	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only)  Date of work completion: _____	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: Operator Name Change
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Effective June 14, 2010 Questar Exploration and Production Company changed its name to QEP Energy Company. This name change involves only an internal corporate name change and no third party change of operator is involved. The same employees will continue to be responsible for operations of the properties described on the attached list. All operations will continue to be covered by bond numbers:

Federal Bond Number: 965002976 (BLM Reference No. ESB000024)

Utah State Bond Number: ~~965003033~~

Fee Land Bond Number: ~~965003033~~

BIA Bond Number: ~~799446~~

*N3700*

*965010695*

*965010693*

The attached document is an all inclusive list of the wells operated by Questar Exploration and Production Company. As of June 14, 2010 QEP Energy Company assumes all rights, duties and obligations as operator of the properties as described on the list

NAME (PLEASE PRINT) <u>Morgan Anderson</u>	TITLE <u>Regulatory Affairs Analyst</u>
SIGNATURE <i>Morgan Anderson</i>	DATE <u>6/23/2010</u>

(This space for State use only)

**RECEIVED**

**JUN 28 2010**

DIV. OF OIL, GAS & MINING

(See Instructions on Reverse Side)

**APPROVED** *6/30/2009*

*Earlene Russell*  
Division of Oil, Gas and Mining  
Earlene Russell, Engineering Technician

Questar Exploration Production Company (N5085) to QEP Energy Company (N3700)  
JOHNSON BOTTOM  
effective June 14, 2010

well_name	sec	twp	rng	api	entity	mineral lease	type	stat	C
LEOTA 1-34-2B	34	070S	210E	4304730879	5420	Federal	OW	P	
WV 7W-36-7-21	36	070S	210E	4304734065	13334	State	D	PA	
WV 9W-36-7-21	36	070S	210E	4304734066	13331	State	D	PA	
WV 11W-36-7-21	36	070S	210E	4304734067	13678	State	GW	PA	
WV 5W-36-7-21	36	070S	210E	4304734099	13807	State	GW	OPS	C
WV 13W-36-7-21	36	070S	210E	4304734100	13678	State	GW	P	
SU PURDY 7W-34-7-21	34	070S	210E	4304734380	13679	Federal	GW	P	
BBE 15G-16-7-21	16	070S	210E	4304735408	14070	State	OW	P	
BBS 15G-22-7-21	22	070S	210E	4304737443	15688	Federal	OW	P	C
TU 3-35-7-21	35	070S	210E	4304738995	16512	Federal	GW	P	
SU PURDY 3M-25-7-21	25	070S	210E	4304739179		Federal	OW	APD	C
JB 4G-27-7-21	27	070S	210E	4304739180		Federal	OW	APD	C
SU PURDY 10G-27-7-21	27	070S	210E	4304739181		Federal	OW	APD	C
JB 8G-21-7-21	21	070S	210E	4304740613	17595	Federal	OW	DRL	C
JB 12G-27-7-21	27	070S	210E	4304740614		Federal	OW	APD	C
JB 1G-28-7-21	28	070S	210E	4304740615		Federal	OW	APD	C
JB 15G-34-7-21	34	070S	210E	4304740616		Federal	OW	APD	C

Bonds: BLM = ESB000024  
BIA = 956010693  
State = 965010695



## United States Department of the Interior

### BUREAU OF LAND MANAGEMENT

Utah State Office  
P.O. Box 45155  
Salt Lake City, UT 84145-0155  
<http://www.blm.gov/ut/st/en.html>



IN REPLY REFER TO:  
3100  
(UT-922)

JUL 28 2010

#### Memorandum

To: Vernal Field Office, Price Field Office, Moab Field Office  
From: Chief, Branch of Minerals *Roger L Bankert*  
Subject: Name Change Recognized

Attached is a copy of the Certificate of Name Change issued by the Texas Secretary of State and a decision letter recognizing the name change from the Eastern States Office. We have updated our records to reflect the name change in the attached list of leases.

The name change from **Questar Exploration and Production Company** into **QEP Energy Company** is effective June 8, 2010.

cc: MMS  
UDOGM

RECEIVED

AUG 16 2010

DIV. OF OIL, GAS & MINERALS